

**The emergence of a post-developmental state in variegated capitalism?
Industrial and regional development policies for the shipbuilding and
semiconductor industries in South Korea**

Jungsuk Woo

Doctor of Philosophy

Centre for Urban and Regional Development Studies (CURDS)

School of Geography, Politics and Sociology

Newcastle University

July 2024

**The emergence of a post-developmental state in variegated capitalism?
Industrial and regional development policies for the shipbuilding and
semiconductor industries in South Korea**

by

Jungsuk Woo

Thesis submitted for the degree of Doctor of Philosophy in Human Geography

Centre for Urban and Regional Development Studies (CURDS)

School of Geography, Politics and Sociology

Newcastle University

July 2024

Abstract

Despite claims about the convergence of capital accumulation regimes in the late twentieth century, each country's economic activities remain persistently differentiated by their geographical and historical settings and pathways. The 'developmental state' is conceptualised as one particular actor that has driven the rapid economic growth and industrialisation of East Asian countries since WWII. The concept explains how countries developed into advanced economies within the global capitalist system in a relatively short period of time through a particular configuration of their internal political economic organisations as well as external conditions. Claims have been made that such developmental states underwent neat transition to 'post-developmental' state status following the economic crisis of the 1990s and the resultant neoliberalisation. Critically scrutinising this transitional process, this study examines whether post-developmentalism has emerged in South Korea, and does so from a perspective of Evolutionary Economic Geography blended with Geographical Political Economy. In so doing it considers whether South Korea still has developmental attributes. Contrary to conventional discussions that emphasise neoliberalisation of state developmentalism, the study demonstrates the institutional continuity and path-dependency of the developmental state and argues that South Korea's 'post-developmental' state is a product of the evolution of state developmentalism. Although neoliberalisation has accelerated in tandem with economic globalisation, strong developmental legacies remain. To examine the legacies and novelties that emerged during this period of state developmentalism in South Korea, a cross-sectoral case study of focused on the industrial and regional development policies for the shipbuilding and semiconductor industries is undertaken herein. The case study finds, firstly, that a state-led strategic industrial nurturing programme, a key characteristic of state developmentalism, persists despite changes in targets, such as from shipbuilding to high-tech electronics. Secondly, it suggests that the Korean state has developmental corporate and industrial production strategies and it sustains to date. Industries and corporations that have grown in state-led ways during state developmentalism take an in-house production strategy to protect domestic industries and promote exports. In other words, these corporations have a limited tendency to participate in global production networks in both shipbuilding and semiconductor sectors. Thirdly, the study finds that the spatial unfolding and results of strategic industrialisation have led to the localisation of industries, creating strong local dependency on both industries and the central government. Local governments demonstrate dependence on the national strategic industries and even persistent dependence on the central government. These developments indicate that the role of the central government is still significant in terms of sustaining old industries

and establishing new industries in the local areas. To conclude, the strong path dependence of industrial and institutional configurations and strategies formed during the developmental era of the 1960s to the 1980s created strong and enduring continuities which underpinned a lock-in to the developmental configurations and strategies and led to gradual evolution to an open-ended post-developmental state. This gradual evolution across two important economic sectors in South Korea reflects strong institutional path dependence in the face of neoliberalising pressures.

Key Words: Developmental state, Post-developmental state, Evolutionary Economic Geography, Variegated capitalism, Geographical Political Economy, Industrial and regional development policy, Corporate production strategy, Shipbuilding industry, Semiconductor industry, South Korea

Acknowledgements

In 2018, while watching the news on TV, I first encountered the closure of General Motors' plant in Gunsan, South Korea and the subsequent economic downturn in the region. This event sparked my initial interest in exploring a specific research area. Through case studies, I delved deeply into the Evolutionary Economic Geography to analyse the case, gaining significant insights from its frameworks, which I later applied to investigating the shipbuilding industry in Geoje, South Korea. After joining CURDS, I conducted another case study on the Korean shipbuilding industry for my second master's study, and in 2020, I began writing this PhD dissertation in earnest. Initially, my plan was to compare the shipbuilding industries of Korea and Japan, focusing on why Japan's shipbuilding industry declined, while Korea's sector managed to endure despite various crises at the national level policy approach. However, due to the impact of COVID-19, fieldwork became infeasible in Japan, and I was compelled to revise my research plan, ultimately conducting a cross-sectoral comparative case study between Korean shipbuilding and semiconductor industries. From the case of GM's plant shutdown to the cross-sectoral comparative study, this 7 years academic journey allowed me to explore a wide range of industries, regions, policies, and institutions, which collectively served as the foundation for this dissertation.

My academic journey has been accompanied by many grateful individuals. First, I would like to express my huge gratitude to my supervisors Professor Andy Pike and Dr. Kean Fan Lim who helped me reach the final destination of this journey. I am well aware of how poor my initial PhD research proposal was. Over the past 4 years and 50 supervisory meetings, they provided immense support to turn that proposal into a completed dissertation. Andy offered invaluable guidance by helping me view my research from a macro perspective, shaping the overall structure and ensuring its robustness. Kean meticulously pointed out finer details, helping me address gaps I had overlooked. Together, their complementary styles formed a perfect ensemble, enabling me to successfully complete my dissertation. Additionally, I would like to thank Professor Danny MacKinnon and Dr. Jamie Doucette for examining my dissertation. Their reviews were highly constructive, offering comments focused on areas I had overlooked while concentrating on my theoretical framework and cases, and highlighting key topics for future research. These comments will undoubtedly guide my future work. Their feedback is more than just an assessment of my dissertation that provided academic inspiration to a budding scholar in human geography.

I would also like to say thank you to my old supervisor Professor Sung-Cheol Lee who provided significant support for my studies. Sung-Cheol guided my master's thesis in Korea, enabling me to start my postgraduate study on the right track. I still cannot forget that day in May 2019. In his office, he asked me if I had ever considered studying at CURDS. At the time, I was a bit surprised since I had an offer from a university in the USA. However, since it was a suggestion from him, I believe it was worth serious consideration, so I emailed Andy. Ultimately, his suggestion led to this successful outcome. Even after I moved to the UK, he continued to inspire me through frequent communication, giving me the energy to pursue my studies. In particular, our meeting in Newcastle in May 2023 served as a positive stimulus, allowing me to focus more intently on writing my dissertation.

Additionally, I extend my heartfelt thanks to professors at Dongguk University, Professor Hae Un Rii, Professor DongHi Kwon and Professor Jaeseob Ahn. Their guidance and encouragement have been instrumental in successfully completing this dissertation. Particularly, Hae Un encouraged me with a motherly heart, helping me to successfully complete my studies. I am also deeply grateful to my colleagues in geography in both Korea and the UK, with whom I shared my academic journey. We navigated similar challenges during postgraduate courses, and they generously shared their tips and know-how after walking this path before me. Thanks to them, I was able to follow in their footsteps with slightly more ease.

Lastly, I want to express my gratitude to those who supported me from the closest distance. My family has always supported my studies and research with unconditional love. Although I rarely visited home during my postgraduate years, using my busy schedule as an excuse, they continued to support me no matter where I was or what I was doing. Without their support, achieving this outcome would have been impossible. In addition to my family, I would like to extend my deepest thanks to Geonhui Koo, who stayed by my side during the most challenging and hectic period of my dissertation writing. By coincidence, we both had busy schedules, but we supported each other as we studied and prepared for the future together. We were studying different things though; her hard work and dedication inspired me to push myself even harder. Moreover, she helped me greatly despite her own busy schedule, offering me tremendous love and support so that I could complete my work on time with stability. I am truly grateful to her for enduring this journey with me.

I do not consider this dissertation to be something I wrote on my own. It was completed with the help of those mentioned in this acknowledgement, as well as many others whom I could not specifically name. I would like to once again express my heartfelt gratitude to all of them.

Table of Contents

Abstract	ii
Acknowledgements	iv
Table of Contents.....	vi
List of Tables	viii
List of Figures.....	ix
Acronyms	x

Chapter 1. Introduction: the transformation of the Korean developmental state and the emergence of ‘the post-developmental’ state?

1.1 Introduction	1
1.2 Critical engagement with ‘the post-developmental’ state	4
1.3 Research justification: Why and How should Korean post-developmentalism be understood	6
1.4 Research aims and questions	9
1.5 Structure of the dissertation	11

Chapter 2. Positioning the Developmental State in Variegated Capitalism and its Evolution to a Post-developmental State

2.1 Introduction	15
2.2 Revisiting the developmental state within variegated capitalism	17
2.3 Evolution of the developmental state toward a post-developmental state	26
2.4 Evolutionary approach blended with Geographical Political Economy to explain Korean post-developmentalism	40
2.5 Conclusions: A research theoretical framework	45

Chapter 3. Methodology

3.1 Introduction	48
3.2 Ontological and epistemological positioning	49
3.3 Research methodology	52
3.4 Research methods strategies	57
3.5 Ethical considerations and researcher’s positionality	63
3.6 Conclusions	65

Chapter 4. Korean developmental strategic industrialisation, key actors and the global settings

4.1 Introduction	67
4.2 Strategic industrialisation, regional development and its changes	68
4.3 Key actors of developmental strategic industrialisation and regional development	78
4.4 From geopolitics to geo-economics: Korean industrial transformation and changes in variegated capitalism	86
4.5 Conclusions	90

Chapter 5. Mapping the evolution of the shipbuilding and semiconductor industries under Korean state developmentalism

5.1 Introduction	92
5.2 The shipbuilding industry in Korea	93

5.3 The semiconductor industry in Korea	102
5.4 Conclusions	111
Chapter 6. The changing role of the national state and national level industrialisation strategies	
6.1 Introduction	113
6.2 Paradigm shift of the state-led industrial development policies?	114
6.3 The dynamics of introducing foreign capital into the Korean developmental state	126
6.4 Conclusions	135
Chapter 7. The changing role of the national state in state-firm relations and corporate strategies	
7.1 Introduction	137
7.2 The development corporate strategy: The internalisation of production processes and catching up with advance industrialised countries	138
7.3 Continuation of the developmental corporate strategy: Strong domestic production networks and weak participation in global production networks	145
7.4 Changes in state-firm relations within the evolution of the developmental state	153
7.5 Conclusions	160
Chapter 8. The changing role of the national state within central-local government relations	
8.1 Introduction	162
8.2 Local and regional development and the role of the developmental government	163
8.3 An increased role of local governments in Korean post-developmentalism	171
8.4 Conclusions	181
Chapter 9. Conclusions	
9.1 Reflection of the dissertation's overall arguments and research questions	184
9.2 Summary of the key findings of this dissertation's empirical analysis	188
9.3 Conceptual contributions: Geographical contextualisation and the evolutionary approach to the emergence of Korean post-developmentalism	193
9.4 Reflections and limitations on the study and further research directions	196
Bibliography.....	198
Appendix A.....	220
Appendix B.....	225

List of Tables

Table 2.1 Variety of capitalism and the Korean case of market economy.....	19
Table 2.2 The developmental state and a post-developmental state of Korea.....	38
Table 3.1 List of Interviews.....	61
Table 4.1 Import tariff rates in the 1950s.....	70
Table 4.2 Different policy focus between the economic development plans and industrial nurturing plans.....	73
Table 4.3 State-owned banks established during state developmentalism.....	81
Table 4.4 Major operators of the heavy and chemical industrialisation strategy.....	85
Table 5.1 The potential of the Chinese shipbuilding industry through global shipping and port rankings.....	102
Table 5.2 The top 5 semiconductor companies by market share as of 2022.....	106
Table 6.1 Shipbuilding and export planning.....	121
Table 6.2 The Korean electronics industry target model in 1980.....	124
Table 6.3 The composition ratio of introduction of foreign capital in Korea.....	127
Table 7.1 Overseas dependency on equipment and materials in the shipbuilding industry.....	141
Table 7.2 National projects for manufacturing memory chip development.....	144
Table 7.3 Changes in the global shipbuilding leader.....	146
Table 7.4 Government financial support for DSME.....	157
Table 7.5 The Chip 4 alliance proposed by the US.....	160
Table 8.1 The amount and ratio of local transfer resources relative to the total tax revenue.....	174

List of Figures

Figure 2.1 Research framework: The Korean developmental state in variegated capitalism and its evolution to a post-developmental state.....	47
Figure 3.1 A cross-sectoral comparative case study on the shipbuilding and semiconductor industries in Korea.....	57
Figure 3.2 A map of research field.....	60
Figure 4.1 Economic development and a shift in industrial strategies in Korea.....	77
Figure 4.2 Economic related offices were at the core of other offices in the developmental state.....	79
Figure 5.1 Geographical concentration of the Korean shipbuilding industry in the southeastern coastal region.....	95
Figure 5.2 Shipbuilding competitiveness factors.....	97
Figure 5.3 Global market share in new ships orderbook.....	100
Figure 5.4 New ships orderbook in 2022.....	101
Figure 5.5 The market share of major types of vessels in 2022.....	101
Figure 5.6 The geographical distribution of semiconductor production in 2021.....	105
Figure 5.7 Vertical disintegration of global semiconductor industry and vertical integration of the Korean semiconductor industry.....	107
Figure 5.8 Semiconductors (ICs) market structure.....	109
Figure 5.9 The major trading partners of the Korean semiconductor industry as of 2022.....	111
Figure 6.1 Trade Balance in Korea (1956-1972).....	116
Figure 6.2 Changes of inward FDI in Korea.....	129
Figure 6.3 Comparing changes of inward FDI between the Korean shipbuilding and semiconductor industries.....	134
Figure 7.1 Technology transfer process in late industrialised country.....	140
Figure 7.2 Shipbuilding costs breakdown.....	142
Figure 7.3 Domestic production networks of the Korean shipbuilding industry.....	147
Figure 7.4 Samsung Electronics in-house supply chains.....	151
Figure 7.5 The Korean semiconductor structure in 2020.....	152
Figure 7.6 Global market share in new ships orderbook.....	156
Figure 8.1 Regional distributions of the key industries in Korea.....	165
Figure 8.2 The changes in the proportion of national and local revenue (1970-2022).....	173
Figure 8.3 GRDP per Capita (1988-2021).....	175
Figure 8.4 Fiscal independence by province in Korea.....	179

Acronyms

AP	Application Processor
BOK	the Bank of Korea
CC	Comparative Capitalism
CEPD	the Council for Economic Planning and Development
CME	Coordinated Market Economies
CPU	Central Processing Unit
DSME	Daewoo Shipbuilding & Marine Engineering
EEG	Evolutionary Economic Geography
EOI	Export-Oriented Industrialisation
EPB	Economic Planning Board
ETRI	Electronics and Telecommunications Research Institute
FDI	Foreign Direct Investment
GPE	Geographical Political Economy
GPN	Global Production Network
HHI	Hyundai Heavy Industries
IC	Integrated Circuit
ICT	Information and Communication Technology
IDB	Industrial Development Bureau in Taiwan
IDM	Integrated Device Manufacturer
IMF	International Monetary Fund
ISI	Import Substitution Industrialisation
KAIST	Korea Advanced Institute of Science and Technology
KDB	Korean Development Bank
KEB	Korea Exchange Bank
KFEZ	Korean Free Economic Zone
KIET	Korea Institute of Electronics Technology
LME	Liberal Market Economies
LQ	Location Quotient
MCI	the Ministry of Commerce and Industry in South Korea
MITI	the Ministry of International Trade and Industry in Japan
NICs	Newly Industrialised Countries
OBM	Own Brand Manufacturer
ODA	Official Development Assistance
ODM	Original Design Manufacturer
OEM	Original Equipment Manufacturer
OECD	Organisation for Economic Cooperation and Development
SMEs	Small and Medium-sized Enterprises
SOEs	State-Owned Enterprises
TNCs	Transnational Corporations
UR	Uruguay Round
USSR	Union of Soviet Socialist Republics
VLCC	Very Large Crude Carrier
VoC	Varieties of Capitalism
WTO	the World Trade Organization

Chapter 1. Introduction: the transformation of the Korean developmental state and the emergence of 'the post-developmental' state?

1.1 Introduction

Following the collapse of Eastern European socialist countries in 1989, discussions regarding the demise of communist and socialist systems and the convergence of states into liberal and capitalist political and economic systems started to emerge (Fukuyama, 1989). Commenting further, Fukuyama (1992) argues that the collapse of the Soviet Union was expected to lead to a global shift towards liberal democracy and market economies. The dominance of the liberal-capitalist system, often referred to as the Cold War following World War II, ultimately concluded with the triumph of American-style democracy and capitalist economies. In Anglophone geographical research, theoretical debates on the changes and convergence of politico-socio-economic spaces due to globalisation began to take place from the 1990s (Peck and Theodore, 2007; Peck and Zhang, 2013; Zhang and Peck, 2016). Concurrently, Asian and Latin American countries moved towards more market-oriented directions, reaffirming the growing influence of liberal market capitalism in both Western and underdeveloped countries (Kim, 2007). These changes were further facilitated by the growing influence of supra-national organisations, such as the International Monetary Fund (IMF), the World Bank, and the Organisation for Economic Development and Cooperation (OECD), which supported the US-centric global economic system with precise policy prescriptions. Such Anglo-American style capitalism was widely believed to be a proper model for global economic integration, and embodied neoliberal principles.

This ongoing process of neoliberalisation was witnessed in Newly Industrialised Countries (NICs) in East Asia. East Asia's late developing countries, often referred to as the developmental states, attained relatively rapid economic growth and industrialisation through the active intervention of individual states, as well as their own specific geographical and historical terrains. The state-led territorial, industrial, and economic development policies, particularly in South Korea (hereafter Korea), which were implemented from the 1960s to the 1980s, diverged significantly from market-centric capitalism, with the state taking a leading role in shaping the financial and foreign exchange markets in specific sectors (Amsden, 1989; Johnson, 1982; Woo-Cummings, 1999). Korea has been recognised as a prototypical developmental state characterised by the establishment of national territorial and economic development institutions and policies that were centrally governed by the

state. Through this process, the state efficiently controlled and mobilised capital and labour with a degree of state autonomy and capabilities. This state-led mode of development has, however, undergone a transformation since the late 1980s. The maturity of democracy after the efforts of the populace has illustrated that the strong developmental government no longer operates in repressive manners as it did before. Concurrently, there has been a growing critique of the state's interventionist role in the market. For example, the growing body of major conglomerates, known as *chaebol*¹, was an instrument in enabling state developmentalism, and the deficiencies of the financial market system in accommodating the demands of these chaebols, prompting calls for economic reform in Korea, which led to the explicit emergence of neoliberal economic reform (Ji, 2011: 125-129). Furthermore, the dissolution of the Economic Planning Board (EPB) in 1994, a pilot agency of the developmental state governing economic and industrial policies, marked a significant shift away from the Korean-style economic development model towards a new neoliberal way of economic system.

The distinctive Korean development model and its transformation over the decades has become a subject of interest in various academic fields including economics and political science. Korea's development experience has attracted a lot of attention in academia for two reasons. First, the country has demonstrated strong economic performance despite strong state intervention. Secondly, the development path was quickly dismantled following the financial crisis in Korea in the late 1990s (Kim, 2017a). Following such academic interest, this study raises the question of whether neoliberalisation has truly led transformative change in both political economic principles and practices in Korea. There is a prevailing belief that state developmentalism has been significant in economic and industrial institutions (Lim, 2018; Thurbon, 2016; Thurbon and Weiss, 2016; Wade, 2018), and that it has led to a distinct form of development that presents features of both state-driven developmentalism and market-oriented neoliberalism.

Korea's experiences were conceptualised as the developmental state, and the concept was noted in the 1980s and 1990s by scholars such as Amsden (1989), Evans (1995), Johnson (1982) and Wade (1990). However, those interested in Korea's experiences often prioritise defining and generalising the development model in preference to examining the state's political and institutional particularities. The conversations persisted following the alterations initiated in the 1980s, aiming to delineate the developmental state following economic development, referred to as 'the post-

¹ As per the Oxford Languages Dictionaries, the term '*Chaebol*' signifies family-owned conglomerates characterised by a management structure predominantly comprised of family members holding significant capital. The definition emphasises the distinct corporate governance structure of major conglomerates in Korea.

developmental state’, and to articulate it akin to the concept of the developmental state. Discussions surrounding the post-developmental state have predominantly centred around two main perspectives: the dismantlement and the continuation of the developmental state (Park, 2012). Scholars who claim that the developmental state has ‘died’ argue that its autonomy has diminished and that it experienced neat transition into a neoliberal state in the course of neoliberalisation and globalisation (Chang, 2003; Ji, 2011; Pirie, 2005; 2008; Stubbs, 2009; Yoon, 2009). Their primary emphasis is on the shifts which have occurred in macroeconomic policy tools, and how Korea’s economic and industrial policies are underpinned by neoliberal principles including, modifications to governmental financial control and a rise in inward foreign direct investment (FDI). Conversely, those who argue that while the Korean developmental state has undergone noticeable shifts in response to globalisation and neoliberal prescriptions from supra-national entities, principles of state developmentalism have persisted even within the post-developmental framework (Chu, 2009; Lim, 2018; Thurbon, 2016; Wade, 2018). The argument focuses on the central government’s procedures for implementing policy, as well as its role in overseeing the banking and financial system rather than prioritising specific economic and industrial policies in the developmental phase. The argument centres upon the idea that while the state no longer exercises direct control over industrial and foreign capital that it did in the past, it is still actively—but indirectly—engaged in the management of industrial and economic systems. This is exemplified by the Korean central government’s handling of the shipbuilding sector crisis and its support for the semiconductor industry.

Regardless of the arguments put forth, the Korean developmental state experienced substantial transformations during the 1990s. Cumulatively, these suggest that the Korean state can no longer be characterised as a typical developmental state that facilitated economic growth and development from the mid-1950s to the 1980s. This is because the concept of the ‘(post)-developmental’ state emerges from a specific geographic and historical conjuncture. The question at hand is, *“How can we further elucidate the concept of the post-developmental state?”* There is no singular opinion when it comes to the definition and categorisation of the post-developmental state concept and this has led to conceptual ambiguity when it is employed as a broad term. This study examines ‘post-developmental’ state as a phenomenon characterised by unique state-social-economic contexts rather than accurately portraying it as a direct progression of the developmental state. In other words, the study understands post-developmentalism as a process that continues to evolve, not as a particular form of the state whose essential nature is strictly defined and fixed. In addition to this, rather than discussing whether the Korean developmental state transformed into a neoliberal state in absolute terms, the study looks at it as an open-ended development; enabling

consideration of the state continuing to have developmental characteristics as well as having adopted neoliberal principles. Thus, it seeks to understand Korea's post-developmentalism as one distinctive form of capitalist variegation that contains various developmental and neoliberal characteristics simultaneously. In moving beyond this binary understanding of state change and transition in Korea, there is a need to emphasise the geographical contexts and conjunctures in its economic and industrial development. State developmentalism was conceptualised inductively through examples such as Japan and East Asian countries in the mid-to-late 1900s, but since then, the development pathways of each country have followed different directions according to individual contexts (Yoon, 2009). As a result, it is difficult to generalise post-developmentalism through specific cases like the developmental state. Instead, this study argues that it is more reasonable to understand and elaborate on the post-developmentalism concept as an open-ended phenomenon that reflects a state's ongoing, shifting temporal-spatial contexts and conjunctures.

1.2 Critical engagement with 'the post-developmental' state

The developmental state has been conceptualised in an inductive way using cases such as Japan and other East Asian countries, and it has been relatively well agreed upon by scholars such as Amsden (1989), Evans (1995) and Woo-Cumings (1999). However, there is less consensus with regards to the post-developmental state, and whether it represents a continuation of the developmental state or a transition to a neoliberal state is post-developmentalism. Mindful of this, this study asks, "*Does the post-developmental state naturally emerge as a consequence of the gradual diminishing of the developmental state?*". The question introduces a critical point in the conventional conclusive debates on the transition into the post-developmental state. This study, however, stresses a contextual, process-oriented and multi-scalar understanding of the transition to a post-developmental state. To do this, it is necessary to critically engage with the conventional approach to the 'state' at first.

Analyses around the state tend to naturally be trapped into the (physical) territorial boundaries determined by various consensus and agreements. A State, therefore, is the outcome of such agreements that bear permanent consequences. However, this understanding does not take into account the possibility that the state can be transformed by relational changes that configure internal and external settings of the state (Park *et al.*, 2012: 13-14). The political and economic changes taking place in the state do not simply depend on its territorial features but also on the historical and geographical contexts of a state. In the same way, state power is not simply affected or reproduced

within a state boundary, but rather, it is constituted by various (tacit) institutional ensembles (Jessop, 1990: 269-270). The state should be considered as being constantly influenced by the various relations that surround it; however, the social sciences discipline possesses a predominately fixed and insular perception of states and their territoriality, which results in arguments falling into the territorial trap (Park *et al.*, 2012: 24-26; Hwang, 2016). The territorial trap, conceptualised by Agnew (1994), suggests that modern social sciences research tends to take for granted states consist of exclusive, bounded territories and recognise a states' territoriality as a fixed structure behind social, political, and economic movements. Such a fixed and absolute perception of the state overlooks the various mechanisms unfolding at particular geographical scales. Brenner (2004) criticises modern social sciences as having a state-centric epistemology that assumes that the state is a basic analytical unit and conceptualises social relations, political processes, and economic systems at a national scale. He explains three attributes of the state-centric perception: (a) Spatial fetishism, in which the state is fixed and therefore impossible to change through political and economic processes; (b) Methodological territorialism, which considers the territoriality of the state to be fixed and permanent in a modern state; (c) Methodological nationalism, which the national scale is considered as the most crucial scale of the modern political system than any other geographic scale (Brenner, 2004: 38).

Similar critiques have also been applied to developmental state literature. From the early discussion on state developmentalism to the current post-developmentalism, studies are just able to escape the conventional approach of territorialism, which seems to depart from spatial fetishism in terms of adopting the possibility of the changes of state developmentalism. Nevertheless, methodological territorialism still appears as it tries to distinguish and conceptualise its static characteristics by dividing it into the developmental or (neoliberal) post-developmental state (Hwang, 2016). Crucially, under this methodological nationalism, (post)-developmentalism is still studied via national level industrial and economic policies and institutions. Whilst it is inevitable that the state remains the main subject of the study since the state and its evolution are guided by the imperatives and structural roles and positions of the national state, it needs to be reviewed in various ways in terms of geographic scales and to be analysed dynamically and in a process rather than recognising the state as a fixed and completed entity.

In order to eschew such research that has tapped into state-centric and static research, it is necessary to pay attention to various geographic scales rather than viewing the state as a singular entity. Conventionally, studies on the developmental state tends to capture economic-centric phenomena at the national scale. While such an economic-centric view of the state is able to elaborate

on various phenomena that happen both inside and outside of the state with capital accumulation regimes, it also sees operation of the state as heteronomous to the economy and its economic governance capacity as meaningless in the face of neoliberalisation and economic globalisation (Ji, 2009; Morgan, 2016). In response, there is a need to consider extra-economic conditions in order to understand the state because economic activities are not the only social activities that need to be coordinated and governed by the institutional arrangement of the state (Hollingworth and Streeck, 1994). More importantly, economic activities are embedded in socio-political contexts and mediated by the state's institutional settings (Deeg and Jackson 2007; Granovetter, 1985), which means that it should be understood with the geographical contexts and conjunctures surrounding the variegated system of capitalism, not just focusing on capital accumulation regimes in the capitalist state. These concerns are addressed further in Chapter 2.

1.3 Research justification: Why and How should Korean post-developmentalism be understood

After half a century of success, the Asian tigers must reinvent themselves

"The four Asian tigers-Hong Kong, Singapore, South Korea and Taiwan- once fascinated the economic world. From the early 1960s until the 1990s, they regularly achieved double-digit growth. A generation that had toiled as farmers and labourers watched their grandchildren become some of the most educated people on the planet. The tigers started by making cotton shirts, plastic flowers and black wigs. Before long, they were producing memory chips, laptops and equity derivatives. In the process, they also spawned a boisterous academic debate about the source of their success. Some attributed it to the anvil of government direction; others to the furnace of competitive markets....."

(The Economist, 5 December 2019)

Korea's rapid industrialisation and economic growth are of interest to various academic fields. Korea was among the poorest countries in the world until the mid-20th century. There was little opportunity to urbanise and industrialise due to Japanese occupation and the Korean War in the early to mid-1900s. In addition, political instability contributed to Korea's nebulous future. Since the 1960s Korea has started to demonstrate unprecedented economic growth and industrialisation through spatially uneven ways of development. This compressed growth happened in just 20 to 30 years, which took

more than 100 years to achieve in advanced economies in the West, and as a result, the gap with earlier industrialised countries narrowed. The core of this growth was development strategies which were centred on large conglomerates, manufacturing sectors, and export industries and led by state-related actors and unbalanced geographies of industrialisation. In addition, the emergence of the Fordist mass production system alongside the new international division of labour and the Pax Americana political paradigm after WWII enabled the emergence of state developmentalism along with Korea's internal state capabilities (SIES, 2015). With these internal and external contexts, the Korean state has undertaken catching-up with advanced economies with authoritarian state's interventional roles that mobilise all national resources in terms of economic and industrial strategies (Park *et al.*, 2012: 12-14).

At the same time, the Korean developmental economic and industrial strategies were geographically concentrated and unevenly carried out. The state chose the spatially selective strategy of investing limited resources in target regions. This resulted in *Gyeongbu* (Seoul-Busan) axis-centred regional development (Park *et al.*, 2014). Until the mid-1980s, these institutionally and geographically uneven development strategies were carried out by nurturing export-led industries because of their relatively low-waged labour and through state-led capital management. Like other developing countries, Korea had an industrial structure in which capital and intermediate goods were imported and assembled, and materials were processed for mass production and export (Choi, 2015). Economic imbalances such as trade deficits, however, followed this success. To overcome the economic imbalances, the central government expanded R&D investment and expenditure to substitute imported intermediate goods. From the 1980s onwards, the private sector promoted R&D with tax incentives, and high-risk projects were implemented through joint projects undertaken by the central government and the private sector. In this way, the central government's coordination of the industrial and economic sectors continued from the early stages of industrialisation to the stable stage in the late 1980s.

The distinctive politico-economic characteristics of the Korean development path were embodied, and the West began to pay attention to these characteristics which were different from Anglo-American experiences. They were, in turn, conceptualised as 'the developmental state'. Korea has been referred to as an archetype of the developmental state, and it was classified as Coordinated Market Economies (CME) in varieties of capitalism discussion (Kim, 2017a). The Korean case drew attention from various academic fields including, economics and public policy, where they ask a common question, "*How did a country which was the poorest in the mid-20th century make miraculous*

progress in half a century?”. Scholars try to answer the question with political and sociological views, such as the effects of the Cold War, Confucian capitalism, economic geography, and state developmentalism (Yoon, 2020). Particularly, the elements that constitute the developmental state, such as elite bureaucrats, state autonomy, and national level mobilisation and resource allocation, characterise the Korean developmental state as a CME country (Kim, 2017b).

Having such elements of the developmental state, Korea was influenced by the maturity of internal politics and global level issues, thereafter, the Korean developmentalism gradually lost its power. From the late 1980s, changes began to appear explicitly. With the end of the Bretton Woods system and the shift in US foreign economic policy, the conditions that had enabled Korea’s rapid growth in terms of exports and trade were extinguished. In addition, the export boom in the 1980s and the rapid growth of the power of chaebol over the state weakened the capability of the developmental state (Ji, 2011: 111). In the 1990s, this was accelerated by the influences of globalisation and neoliberalisation. In addition, the 1997 Asian financial crisis revealed the internal contradictions of state developmentalism and gave rise to the argument that it was no longer valid in Korea. Following the limits of state developmentalism and the neoliberal prescriptions from supra-national organisations, it has been widely argued that the developmental state was coming to its end; to be followed by what is the so-called post-developmental state (Pirie, 2005; Yoon, 2009). The latter is also often referred to as a neoliberal capitalist market country. As developmentalism waned, the autonomy and capability of the central government began to decline rapidly, while an economic system centred around chaebols started to emerge. This shift is interpreted as representing the rise of the market over state developmentalism, with the state played less direct interventional role. It marked the starting point of neoliberal economic reforms. The changes that thence occurred are clear examples of the emergence of the post-developmental state, and represent the conceptual division between the developmental state and the post-developmental state.

Despite such differences and the binary classification of these concepts, this study proposes a more process-based understanding of state developmentalism and post-developmentalism. The reason for this is that such conceptual distinctions are often based on state level industrial policies and economic strategies and overlook the fact that the underlying mechanisms of developmentalism may still persist. In addition, not all sectors and regions were uniformly affected by the developmental attributes and their evolution with the latter manifested in different manners across geographic areas. Without addressing these aspects, it is hard to proclaim that there was ‘a neat shift’ from one period to another. In other words, rather than viewing the post-developmental state as separated from or as

the next stage of developmentalism, it can be understood as an evolved form that shares common internal mechanisms, which can also be regarded as a kind of variant. In this regard, the Korean post-developmental state can be seen as one distinct kind of capitalist variegation that, while superficially espousing neoliberal ideology, inherited developmental attributes and principles. This, in turn, provides the research justification for this dissertation.

1.4 Research aims and questions

The study, focusing on Korea, aims to elaborate on the process of change from state developmentalism to post-developmentalism as well as its internal mechanisms. It does so, using multi-scalar political economic connections, and elaborates on the emergence of a post-developmental state in Korea using an Evolutionary Economic Geography (EEG) blended with Geographical Political Economy (GPE) approach. Contrary to conventional discussions pertaining to the neoliberal characteristics of state developmentalism, the study stresses issues of institutional continuity and path-dependency under specific geographical contexts and conjunctures and argues that Korea's post-developmentalism represents a particular phenomenon within the evolution of state developmentalism. Although neoliberalisation has progressed considerably, strong developmental legacies from geographically specific contexts and conjunctures remain. Neoliberal principles, particularly as theorised within the context of the Global North, have clear limitations when applied to the Asian context (Yeung and Lin, 2003). Hence, rather than simply blending post-developmentalism with neoliberalism, this study analyses how these principles have been articulated with the intuitional legacies of the past within the settings of East Asia and, specifically Korea.

In addition to this, the study does not intend to argue that Korea has completely departed from the developmental state model; instead, it elaborates on how the developmental state underwent transformation with impacts of neoliberalisation and what are the legacies and novelties of this change of the Korean developmentalism. Accordingly, the study mainly focuses on the process of changing state developmentalism, and it seeks to place (post)-developmental state within the variegated system of capitalism whilst also addressing how interactions with external actors have (not) affected the subnational scale. In order to achieve the study's main aims, the following research questions are addressed herein.

1. How has the role of the state changed during Korea's process of evolution from the developmental to a post-developmental state?
2. How have developmental state-firm relations changed during the Korea's evolution to a post-developmental state?
3. Why have local governments not played a prominent role in national industrial strategies in the developmental state? And is the subnational regional industry evolving along with the evolution to the post-developmental state?

Hitherto, studies on the developmental state have predominantly been conducted at the national scale (Hwang, 2016). Typically, such analysis has focused on national industrial policies financial policies and how they have been transformed in accordance with neoliberal principles (Chang, 2006; Shin and Chang, 2003). In contrast, this dissertation, not only pay attention to these conventional national scale analyses but also to the changes that have occurred at subnational levels; for instance with regards to, firms and locals. To date, there has been a notable lack of research on developmental corporate strategies, except for Coe and Yeung (2015) and Yeung (2016), and the role of local governments. This makes these research questions noted above particularly valuable for analysis.

The first research question addresses how the role of the state has evolved towards post-developmentalism through policy changes. It aligns with the conventional approach of the developmental and post-developmental studies that explains the transformation of national level industrial and economic policies. At the same time, it also elaborates on the dynamic evolution of state developmentalism by examining the (un)changed feature of the Korea's export-led industrial principle and the methods of foreign capital introduction. It also seeks to identify how changes in global scalar affairs have influenced the adjustment of national industrial strategies; thereby examining changes in the state's economic operational principles. This national level economic operational principles interconnect with cross-scalar industrial and regional development policies that eventually lead to co-evolution between national and subnational governance.

The second research question demonstrates the impact of the evolution of Korean developmentalism at the firm level. While existing studies have primarily analysed developmental corporate activities and state-firm relations through the lens of chaebol-centric industrial and economic policies, this dissertation delves deeper into corporate production activities and strategic aspects. The developmental industrialisation strategy in Korea has fostered simultaneous growth across various target sectors to create forward and backward linkages. This interconnected approach has meant that changes in the production strategy of one industry inevitably impact the entire

national industrial framework. In this regard, the question asks for the dynamic aspects of the coexistence of developmental production strategies and post-developmental corporate strategies.

The last research question examines the role of local governments in the Korean post-developmental state, and specifically addresses why such units of administrations have failed to take on a leading role despite their constitutionally guaranteed position of local autonomy. It seeks to understand how the relationship between the central and local governments has (or has not) changed in a post-developmental state, and focuses on issues of fiscal structure as well as the state-led approach to promoting the construction of local and regional industrial complexes.

By answering these research questions, the study positions the Korean (post)-developmentalism as a distinctive form of capitalist variegation and proposes a dynamic approach by which to identify post-developmental state. In turn, the study argues that Korea's post-developmentalism should be understood as a dynamic process in which characteristics of both developmental and neoliberal principles are found, and that these cannot be examined by Western-centric theories and concepts *per se*.

1.5 Structure of the dissertation

Following this introductory, the dissertation is divided into 8 chapters. Chapter 2 reviews theoretical and conceptual backgrounds. The theoretical review of this study is based on the (Post)-Developmental State, and the EEG and the GPE approaches. The chapter critiques the limitations of conventional approaches and proposes a dynamic conceptual approach. Specifically, the dissertation argues for a more process-based view of which post-developmental state is an ever-changing and non-fixed actor that manifests in various econo-geographical contexts and conjunctures. The study utilises the EEG framework and starts with the limitations of the traditional approach to the EEG, particularly its Western-centric perspectives and the relative lack of attention to the role of the state actor. This EEG framework underscores the need for the GPE approach to the evolution from the developmental to a post-developmental state. With this dynamic approach, in this chapter, the emphasis is not on conceptualising Korean post-developmentalism but rather on advocating for an open-ended approach. Conceptualising post-developmentalism as existing studies have done allows for only a one-dimensional view of a multi-faceted state developmental model. The study addresses the evolution of the Korean state developmentalism more dynamically, in order to provide more conjunctural and geographical understanding of the evolution.

Chapter 3 presents the methodology. This study elaborates on the mechanisms as a process rather than concentrating on the transition from the developmental state to the post-developmental state. The research proceeds with a cross-sectoral comparative case study with utilising Korea's shipbuilding and semiconductor industries. Despite the two sectors have different industrial policy implementation processes and practices, the value of the comparative cases is yielded from similar policy principles as national strategic industries. The specific research methods used involve examining temporal changes to the two industries and regional economies through descriptive statistical analysis, followed by interpretation through qualitative methods. The qualitative methods used included conducting semi-structured interviews with individuals such as industry practitioners, central and local government officials, and relevant researchers. The interviews were conducted in Korea from March to June and September to October 2022. They followed low-risk research ethics standards, and the data was collected and processed accordingly.

Chapters 4 and 5 provide the contextual background of the dissertation. Chapter 4 delves into the context of Korea's state-led industrial and territorial policies, and explains why the Korean developmental state had no choice but to pursue state-driven policies and address the resulting issues of uneven development and local dependence on the central government. It also describes how state developmentalism has evolved and been sustained in post-developmentalism, and reveals legacies and novelties within the processes of Korean developmentalism. Particularly, the development of the shipbuilding industry has involved significant state participation since the 1970s, with the industry's characteristics of high territorial embeddedness, which makes it feasible to highlight both national and subnational level policies and trace the changes over time. Additionally, while the semiconductor industry exhibits a more prominent role for corporate actors, the increasing involvement of the state in response to global semiconductor issues allows for the exploration of the sustainment of developmental features in post-developmentalism.

Chapter 5 supplements Chapter 4 and focuses on each industrial characteristic within a global context. It elaborates on the changes in global leadership that have occurred in both the shipbuilding and semiconductor industries and sheds light on why and how the state is seeking to prevent the industries losing its global leadership. The study suggests that Korea still possesses the interventionist characteristics of the developmental state, with industrial protection and the nurturing of key export industries still being in place. Particularly, it elucidates the phenomenon where changes in state-led industrial strategies are more pronounced than changes in the firms and regions as a response to global competition and rapid transitions in global industrial trends. By synthesising the contexts

presented in chapters 4 and 5, the study provides a comprehensive understanding of why Korea continues to exhibit the hallmarks of the developmental state.

Chapters 6, 7 and 8 provide empirical substantiation pertaining to the study's key arguments and demonstrate how the conceptual framework works. They elaborate on the evolution towards post-developmentalism by focusing on the role of the state as a key actor and the changes in policies that have occurred regarding Korean shipbuilding and semiconductor industries as well as regional development. These chapters shed light on the transformation of relationships that have occurred between the state and individual firms, as well as between the central and local and regional governments. Chapter 6 examines the characteristics of the Korean developmental state in terms of industrial policies as well as ways of introducing industrial capital and finds the (un)changes that have led to the evolution into a post-developmental state. In particular, it is suggested that since the export-oriented industrialisation of the 1970s, Korea has sustained its export-led industrial and economic structure; highlighting the state's developmentalist features. This analysis chapter elucidates upon the institutional path dependence of the developmental state by examining how policies, particularly those combining neoliberal elements, have been pursued. Specifically, the chapter sheds light on regional industrial policy changes pertaining to Korea's key export industries, namely the shipbuilding and semiconductor industries, to underscore the continued presence of neo-mercantilist, export-led strategies within both industrial and regional development policies.

Chapter 7 delves into the changing dynamics of state-firm relations, with a focus on national state and firm level analysis. It examines (post)-developmental production strategies by raising and answering three questions in terms of the relationship between the state and firms in the case sectors. First, in the developmental industrialisation strategies, how can the relations between the state and firms be described? Second, how have companies benefited from production strategies that meet the needs of the developmental state? These two questions aim to elucidate the strategic relationship between the developmental state and national champions. Third, what particularities have been created in terms of corporate production strategies, and how has it evolved in the context of global production networks? This question examines the continued developmental mode of production and how it aligns with the trends in global production networks. These three questions help clarify the particularities and persistence of manufacturing strategies in Korea, as well as the state-firm relations, in achieving the objectives of the developmental state.

Chapter 8 analyses the (un)changing relations that have occurred between the central and local and regional governments. It elaborates on the results of the centralised and top-down regional

industrial policies implemented in the Korean developmental state and how they have unfolded locally in a post-developmental state. While emphasising the role of the state in (post)-developmentalism discussions, local and regional level discussions have tended, within existent literature, to be marginalised and subordinated to the national level policies. This chapter comments on the changes and implications of local and regional development as well as regional industrial policies with regards on the evolutionary process of Korean state developmentalism. Critically scrutinising the changes that have occurred in the relationship between the central and local government, it may seem on the surface that there has been a shift towards post-developmental relations, with a reduction in the role of the central government and an increase in the role of local and regional government; however, fundamentally there has not been a significant difference. This is because institutional inertia in the strategic selective regional industrial development policies implemented during the developmental era has blocked regions from developing indigenous capacities for growth. Furthermore, in the shipbuilding and semiconductor industries in Korea, which are crucial national industries, the role of the central government remains disproportionately large with local and regional governments still heavily reliant on the central government. Through these analysis chapters, the study argues that the attributes of state developmentalism persist in national level industrial and regional policies, corporate level production strategies and the role of local and regional development strategies.

Chapter 9 concludes this dissertation, summarising the discussions from Chapter 1 to 8 and drawing out its theoretical implications. The study finds the legacies of state developmentalism and the novelties of post-developmentalism in the evolutionary process towards post-developmentalism, using Korean shipbuilding and semiconductor industrial and regional development policies, as a case study. The dissertation argues that rather than viewing developmentalism and post-developmentalism as dichotomous concepts, it is more valid to understand them as variations that have gradually evolved in conjunction with neoliberalisation and specific national temporal-spatial contexts, moving beyond the binary discourse. The study emphasises an alternative approach to a post-developmental state, highlighting the diverse form of post-developmentalism exhibited by developmental state over several decades. Particularly, it suggests that understanding (post)-developmentalism in Korea as a particular kind of capitalist variegation, characterised by various facets rather than being inductively defined, is more appropriate.

Chapter 2. Positioning the Developmental State in Variegated Capitalism and its Evolution to a Post-developmental State

2.1 Introduction

Substantial changes have occurred in the global system of capitalism. The victory of US-led neoliberal governance accelerated the integration of economies through globalisation with regard to both corporate production and international trade, whilst the emergence of supra-national organisations, such as the World Trade Organisation (WTO) as well as transnational corporations (TNCs) has meant that the global economy is ever-more interdependent (Yeung, 1998). This integration of the global economies marked the start of neoliberal hegemony; however, the worth of an individual geography of the state that have been accumulated with specific socio-political relations within the state remain significant (Gong and Hassink, 2020; Park *et al.*, 2012: 4-5). Nevertheless, the importance of geographies has been marginalised. Discussions of market-friendly capitalism based on the thoughts of mainstream economists such as Milton Friedman and James Buchanan have been a major concern in economics and social sciences. Human geographers have focused on this by critically discussing capitalism and theorising back to address its spatial unfolding and uneven development (Yeung, 2019). In addition, they have tried to grasp the dynamics and variegation of capitalist states, away from the deterministic theories of neoclassicism (Peck, 2017; Sheppard, 2011; Yeung, 2023). Capitalism has gone through constant stages of evolution rather than keeping to its original theoretical discourse and has produced new sets of spatial-temporal contexts (Fligstein and Zhang, 2010). The evolution of capitalism has also led to geographical changes because its momenta is highly related to spatial-temporal contexts in which capitalism can be (re)constructed and unfolded. As a result, the geographical variegation of capitalism has become a research topic in economic geography, and various discussions pertaining to the dynamic forms of capitalist spatiality have emerged (Peck and Theodore, 2007). This study concurs with this research direction that focused variegation of capitalism in a spatial context and particularly addresses variegated capitalist states in ‘non-Anglophone states’, particularly the East Asian developmental states which have, to date, been relatively alienated from economic geographic discussions (Yeung and Lin, 2003).

This study elaborates on three theoretical concepts. First, it revisits the Korean (post)-developmental state as a particular kind of capitalist state. The classification of capitalist states with varieties of capitalism rubrics, which make a couple of types of capitalist states, is reconsidered with

a variegated capitalism framework. This study, then, revisits the Korean state developmentalism by locating its position in the global capitalist variegation. Second, it explains how the developmental state in variegated system of capitalism has changed to become a post-developmental state from the perspective of the EEG. This, in turn, provides a justification to view the change to post-developmentalism as a path-dependent evolutionary process. Finally, it presents a dynamic conceptual approach with the EEG blended with the GPE to emphasise the dynamic role of the state actor and the importance of contexts and conjunctures. Since there is not yet a common definition for post-developmentalism, this study scrutinises the characteristics of post-developmentalism that are distinct from state-developmentalism as particular features of individual countries. Through these three conceptual works, this study seeks to understand a post-developmental state that is not as the next stage of the developmental state noted in conventional studies, but as an open-ended expression of the evolution of the developmental state.

The remainder of Chapter 2 is organised as follows. Section 2.2 discusses the variegation of capitalism and the position of the developmental state within the capitalist variegation. This study critically engages with research on the Varieties of Capitalism (VoC) and highlights the importance of the geographical contextualisation of global capitalism within variegated capitalism discussions. Section 2.3 comments on the evolution from the developmental state to post-developmental state against the broader backdrop of variegated capitalism. It summarises the matters agreed on in the discussion of the developmental state centred on Korea and organises the differences between conventional approaches to a post-developmental state, then establishes the research focus on how to understand the Korean post-developmental state. Section 2.4 describes how to approach changes in the Korean post-developmental state. In so doing, it emphasises the use of dynamic conceptual approach that blends insights from the GPE while critically engaging with the limitations of the EEG in explaining East Asian contexts. It underscores the need to consider the characteristics of individual countries and state actors, and advocates for a perspective that integrates the GPE into analysis. This approach improves current geographical research on the Korean developmental state in that it presents a nuanced political economic context and conjunctures of the state and its evolution. Lastly, section 2.5 presents a research framework based on the previous subsections. The research framework shows the logical circuit of the evolution into the post-developmental state of the Korean developmental state and describes the arrangement of contents and cases on how to organise in the next chapters.

2.2 Revisiting the developmental state within variegated capitalism

The developmental state has been an influential concept for understanding and explaining the relatively fast industrialisation and economic growth of East Asian countries. State-led economic development, bureaucratic autonomy, and public-private cooperation are the keywords that elaborate on the miraculous success of East Asian countries. In addition to these internal factors, the strategic economic aid and trade benefits provided by the US during the Cold War also contributed to the rapid economic growth of late industrialised countries in East Asia. Considering both the internal and external circumstances of the developmental state, scholars argue that state developmentalism is created within specific geographical and historical contexts and trajectories (see Amsden, 1989; Evans, 1995; Johnson, 1982; Wade, 1990). For instance, without the geopolitical tensions of these countries being the frontline against communism, the US might not have provided substantial economic assistance to them. In addition to these external settings, factors such as the nationalist sentiments prevalent in East Asia were crucial for the formation of strong state autonomy and capabilities. While the rapid economic growth experienced by East Asian countries has been generalised and conceptualised as the developmental state, a closer examination reveals that each country has followed a distinct developmental path influenced by its own unique spatial-temporal contexts. The concept of the developmental state has been inductively defined from the specific case of Japan and has been conceptually developed as it was applied to other countries. This led to an oversimplification and reduced the geographical-historical settings of individual countries to a universalised regional characteristic of East Asia. Addressing this, this study delves into the geographical nuances of these general characteristics and explores how they should be understood within the framework of variegated capitalism.

2.2.1 Pluralisation in global capitalism

Hyper-globalisation and neoliberal globalisation have become dominant discourses of the 21st century. At the empirical level, extensive international trade and cross-border investments demonstrate the integration of the global economy, and show how it has resulted in the consolidation of neoliberal hegemony and created a unipolar system of global capitalism (Park, 2020; Peck and Theodore, 2007; Peck and Zhang, 2013; Zhang and Peck, 2016; Yeung, 1998). Nevertheless, it is crucial to critically question whether this convergence of national economies and neoliberal principles has the same face beyond the spatio-temporal context. In other words, can the unipolar form of global capitalism imply various geographies of the capitalist states? And how should countries that are slightly out of the so-called orthodox capitalist state, such as East Asian and Latin American countries, be interpreted? In

response to these questions, this section sheds light on how to approach and explain spatial-temporal contexts and pathways of individual countries in terms of the variegation of capitalism.

There have already been attempts within existent literature to explain various forms of capitalist states that have also (slightly) highlighted the significance of geographies. Within the Comparative Capitalism (CC) literature, the pluralisation of global capitalism begins with the claim that capitalism does not characterise only one particular kind of economic system. The discourse on such a unipolar capitalist system was criticised by Albert (1991) and Huntington (1996) for the differences in trajectories in the capitalist systems, regimes, and models. Commenting further, Albert (1991) argues that capitalism has no ego to reflect itself on how it should respond to unexpected and external shocks, and he suggests that there is a pluralisation of capitalism, not a monolithic conception of capitalism. He characterises global capitalism as a socially coordinated Rhine model and a neoliberal Neo-American model. The Rhine model prioritises social consensus and the public interest and aims for a stable social-economic system; a model that has been widely adopted within continental Europe, such as within Germany and the Netherlands as well as by Scandinavia countries, and Japan. The Neo-American model, on the other hand, puts individual interests before group interests and aims to vitalise the economic system through markets and financial system; epitomised by the US in the post-Reagan period and the UK in the post-Thatcher period (Peck and Theodore, 2007). The attempt to diversify capitalist states from a comparative point of view is worth in terms of geographically contextualising the economic systems of individual countries.

This pluralisation of capitalism by comparative approach led to discussions of a Variety-of-Capitalism (VoC) based on neo-institutionalism (Hall and Soskice, 2001). Hall and Soskice (2001) provide an important way to understand global capitalism, which sought to try and develop categories that are useful to theorise and explain the growing diversity of capitalism across the world. VoC scholars are typically sceptical about global convergence discourses, and they contend that national economic circumstances are politically enabled, institutionally mediated, and socially embedded (Peck and Zhang, 2013). With the thoughts about geographies of economic system, Hall and Soskice (2001) further suggest that national political economies could be identified and compared by reference to how firms resolve the problems in five spheres: Industrial relations, Education and training, Interfirm relations, corporate financing and governance, and Employees (Peck and Theodore, 2007). The five strands of corporate institutional coordination classify a national political economic system into the binary form of the CME and LME. Table 2.1 shows that the CME is a model that corresponds to the operation and management of a firm through non-market coordination, union activities, consensus-

based corporate relationships, and long-term stability. This corresponds to the Rhine model presented by Albert (1991) and there are clear case countries, including continental Europe and Japan that illustrate this phenomenon. In contrast, the LME is a model in which firms manage and operate their businesses based on market-based coordination. This corresponds with the Neo-American model, and the most representative countries that illustrate this model are the US, the UK, and Canada. In addition to this binary classification of the market economy, this study presents the Korean market economy using VoC rubrics of which Korea partially shares characteristics of both CME and LME with a notable role for both the state and institutions; as such it is challenging to fit Korea precisely as either CME or LME. Nevertheless, the variety of capitalism elaborates on the claim that there are multiple forms of capitalist state and such classification of capitalist states gives insight into that it problematises the systemic institutional logics of a range of national capitalism (Peck and Theodore, 2007). On top of that, it suggests that capitalism can be represented according to the institutional ecologies, and this can be represented by national political economic settings, a part of national geographical contexts (Dixon, 2010).

Table 2.1 Variety of Capitalism and the Korean case of market economy

	Coordinated Market Economy (CME)	Liberal Market Economy (LME)	The Korean Market Economy
Labour-Management Relations	Coordinated and regulated labour market, Major roles of employer representative bodies	Uncoordinated and less-regulated labour market, Limited roles of employer representative bodies	Coordinated and regulated labour market, Limited roles of employer representative bodies
Education and Training	Investment in human resources, Conducting special technical training by industry and company	Investment in general technology, Weak corporate education and training investment	Investment in general technology, Conducting special technical training to increase productivity
Interfirm Relations	Consensus-based relations, Setting standards between firms, Allowing technology transfer between firms	Strong competitive relations, Setting standards through market competition, Technology transfer via the market	Institutional and policy-based relations, Setting standards through laws and policies, Policy-driven technology transfer
Corporate Financing and Governance	Reluctance to high-risk finances, Stable shareholder arrangement, Long-term finance through monitoring, Limited hostile takeovers	Orientation to high-risk finances, Unstable shareholder arrangement, Permitted hostile takeover	Reluctance to high-risk finances, Stable (a limited number of) shareholder arrangement, Long-term finance through regulations, Limited hostile takeovers
Examples	Germany, Sweden, Switzerland, Belgium, Italy, Japan	United States, Canada, United Kingdom, Australia, New Zealand	-

Source: Adopted from Peck and Theodore (2007) p.746; Author's modification.

This pluralisation of capitalism raises questions as to whether simply dividing capitalism into systematic aspects would be sufficient to represent global capitalism. In the CME-LME continuum, Hall and Soskice (2001) make limitations in their endeavours to make a classification of capitalism in some points. For example, in dealing with the various systems of capitalism, the focus is on ‘variety’ rather than ‘capitalism’ *per se*. This represents the differences that exist between the various capitalist systems between the CME and LME with the corporate institutional differentiation; however, it dismisses the fundamental and structural interdependence that exists between disparate political economies and contingent convergence (Peck and Theodore, 2007). In addition to this, though the VoC classifies capitalism through institutional diversity, Hall and Soskice (2001) overlook the settings in which various institutions could occur at multiple geographical scales, such as the relationship which exist between the state and firm, the state and the local/region, and the local/region and firm. Instead, they reify the economic system by focusing on aspects of corporate activities such as corporate education and training, interfirm relationships, and wage settings. As evidenced in Table 2.1, while the role of the state actor and institution is significant in Korea, it is also evident that the VoC lacks consideration of (the evolutionary feature of) institutions. As such, the VoC would be an overly restrictive capture of the variety rubric that may exist within the national level institutions, and may raise controversy over whether the variety of capitalism can be discussed via a limited focus on the differences from business activities (Park, 2020).

With regards to the lack of consideration of geographical interconnections in global capitalism, there is a lot of North Atlantic state-centred thinking within this discourse. Literature tends to refer to the United States, the United Kingdom, Continental Europe, Australia, New Zealand, and Japan, so-called the Global North countries. From an institutional economic context, however, it is questionable whether such Global North-centric cases can represent ‘global’ capitalism. More varied modes of capital accumulation would be presented if the countries considered also include late-developed countries in East Asia and South America or transitional economies in Eastern Europe; all of which are not the epitome of the so-called Western capitalist state. In addition, the classification of capitalism has been undertaken by focusing on current national territorial boundaries; an approach that could be prone to methodological nationalism and national reductionism (Dixon, 2010; Park, 2020; Peck and Theodore, 2007; Zhang and Peck, 2016). The VoC stresses capitalist variety on the national level by presenting the states that belong to the CME or LME; this may reduce a variety of capitalist features into the characteristics of the state and *vice versa*. It is necessary to consider the possibility that economic activities can jump between the scales and may also possess forms of spatial behaviour at both national and subnational scales. For example, there are a number of cases which show TNCs

strategically coupling with actors at subnational level (Coe *et al.*, 2004); this implies that the state is not the only container that can hold capitalism, and that capitalism can be sufficiently unfolded at both higher- and lower-level scales. Lastly, existent VoC literature recognises capitalism as a static system. While acknowledging that institutional settings are not easily changed and are hard to completely reverse in terms of institutional path dependency, some countries have undergone significant changes over the past few decades. For instance, socialist countries such as Vietnam and China have already entered the global capitalist economic system and East Asian countries that allegedly belong to the CME countries as per VoC literature are gradually incorporating into Anglo-American style capitalism (Brenner *et al.*, 2010). It follows that since the state has ever-changing features, defining and stylising complex capitalist states a binary categorisation can oversimplify capitalism. In the same vein, even though Korea's economic development model has undergone significant changes, it cannot be neatly fit into these binary categories as if it was a concluded matter.

2.2.2 Variegated capitalism: Beyond the bipolar classification of capitalist state

It is difficult to know everything about how capitalism unfolds in those countries that do not operate in line with the simply divided forms of capitalism. This can lead, especially, to countries in the developing world and the Global South being marginalised. This observation, in turn, supports the critical point of view on the VoC that numerous kinds of capitalist states can exist, and again highlights the importance of understanding the geographies of each country. Economic geographers have endeavoured to grasp distinctive national and regional manifestations of capitalism and to appreciate the institutionally mediated and socially embedded nature of economic relations and structures (Dixon, 2010). From such a point of view, understanding of the bipolar system of capitalism is perceived as missing an essential source of geographical difference, and on top of that, the VoC fetishises the national scale by failing to capture opportunities for institutional relationships and mobility resulting from economic activities at other geographic scales (Peck and Theodore, 2007). Since economic activities consist of the relationships that occur between (and of) actors at various geographical scales, it is necessary to understand the capitalist system by identifying institutions through a multi-scalar approach to economic activities on institutional vitality. Such a geographical understanding of capitalism fosters the need for an alternative approach to 'Variegated Capitalism' that underscores how the global system of capitalism is constituted by interconnections between national economies and the importance of examining supra- and subnational connections.

Along with the demand for conjunctural and relational interpretations based on an uneven spatial unfolding of capitalism, the variegated capitalism framework offers different rubrics of

capitalism to the VoC literature. According to Peck and Theodore (2007), variegated capitalism focuses on individual cases instead of classifying them, and thus interprets capitalism as a conjunctural analysis through the relative institutional and cultural political economy (Park, 2020). This approach to capitalism captures the moments of economic transformation and restructuring from specific vantage points rather than prevailing interpretation through the institutional model of the state, and thus attempts to establish a structural, multi-scalar, and geo-historical understanding of state-economy settlements (Peck and Theodore, 2007). This variegated capitalism approach transcends the above-mentioned limits of the VoC as it focuses on the fundamental and structural institutional settings of the national economic system rather than demonstrating and classifying capitalistic varieties. As a result, it identifies institutional contexts and relationship linked to actors at various geographic scales. In addition to this, since it captures individual geographical features and conjunctures, it deviates from global north-centric perspectives which present more open and diverse perspectives compared to the VoC's static view of capitalism because it is an approach that can grasp the dynamic and evolutionary points of global capitalism.

While interpreting capitalist states using variegated capitalism frameworks can make it difficult to have a clearer understanding of capitalism and the state rather than the variety of capitalism literature, this conjunctural and context-specific approach provides a useful way to (re)interpret and (re)understand cases both inside and outside the axis of the VoC approach. For instance, Korea was deemed to be in the coordinated market economy during the developmental era; however, there is room to rethink why the Korean developmental state tried to coordinate the market, and whether it would be reasonable to look at it as a European CME model. The variegated capitalism approach can also question whether Korean state developmentalism evolved into the LME path following the neoliberal prescriptions that followed from the Asian financial crisis.

2.2.3 Positioning Korean developmentalism in variegated capitalism

The original developmental state concept was conceptualised through the case of Japan and shed light on the rapid industrialisation of late-industrialised countries in East Asia. Thereafter, lots of related research was conducted between the late 1980s and the early 1990s (Amsden, 1989; Haggard, 1990; Johnson, 1982; Wade, 1990; World Bank 1993). With such studies, the developmental state is used as a generic term to explain the rapid economic growth of East Asia and a range of factors pertaining to its emergence are generally agreed upon by scholars. With regard to internal factors, it is suggested that there is strong leadership with elite bureaucrats independent and autonomous from social forces (Haggard and Moon, 1983: 150), whilst with regards to external factors, there are the Cold War

alliance with the US (Woo-Cummings, 1999) and favourable international trade conditions for the US market (Lim, 2018). In addition, and for ideological factors, there are nationalist and neo-mercantilist state ideologies that set economic growth and industrialisation as the top of goals and rationale for individual regimes (Haggard, 2004; Stubbs, 2009). Cultural factors, such as Confucian principles and communitarianism that can also be seen as major forces of East Asian capitalism and the developmental state, are also seen as significant (Paik, 1998). State developmentalism with these characteristics has changed its appearance as consequence of changes to both internal and external settings including, for instance, the maturity of democracy and globalisation in the 1980s, and the financial crisis in the 1990s. At the same time, neoliberalism has become an ideology that governs the economy and politics of the developmental state, although it shows somewhat different patterns from country to country (Park *et al.*, 2012: 23).

There are some characteristics in common among research on the developmental state. Johnson (1982) presents several features of the developmental state: (a) the presence of elite bureaucrats with the best managerial talent, (b) a political system in which bureaucrats are given sufficient initiative and autonomy, (c) the perfection of market-conforming methods of state intervention in the economy, and (d) a pilot agency controlling and governing comprehensive policies (Stubbs, 2009). Commenting further, Amsden (1989) views Korea as an epitome of the developmental state and elaborates on how the state intervened in the economy through the 'getting the prices wrong' strategy. She focuses on the cooperative relationship that exists between the state and firms in Korea and how the central government strategically designated target industries while providing benefits and support to maximise resource utility. What is important is that the central government provides various support to specific and selected sectors and companies, while at the same time, placing strict guidelines on them to ensure the results of capital input.

In addition, Wade (1992) conducts a comprehensive analysis of the role of the Korean government and refutes the neoclassical view of the success of the developmental state. The neoclassical view of the developmental state attributes the miraculous economic rise to market liberalisation, free trade and participation in the global market, which gave them opportunities for economic growth (Islam, 1992; World Bank, 1993). Wade (1992) stresses the role of the state in allowing companies to compete in the global market such as the government's credit manipulation and market-leading industrial policies. Evans (1995) presents the concept of 'embedded autonomy' and explains why East Asian countries, unlike predatory countries in Africa, were able to become the developmental state. The concept of embedded autonomy explains how the central government was

able to form close institutional and social networks with the private sector (mostly private firms) while not being swayed by the interests and pressures of social forces. As per Evans (1995), in Korea, the public and the private sector formed a complementary relationship with a growth-oriented ideology and networks. For example, at the time of state developmentalism in Korea, the public and private sectors had no choice but to have complementary relations with each other in terms of adopting a growth-oriented ideology. The central government set comprehensive plans and prepared institutional foundations but was not able to implement the plans properly due to a lack of (financial and entrepreneurial) capacity to realise plans. In addition, the firms had little opportunity to accumulate capital because of insufficient technology and resources. As a result, the public sector provided opportunities to implement the state's will of development, which created strategic complementary relations in the Korean developmental state (Lee, 2009). Taken together, and unlike Anglo-American capitalist states, the Korean development state exhibited a more prominent role for the central government over the market. At times, the state dominated and spearheaded national development alongside designated private sectors.

The policy and institutional configuration of the developmental state was conducted in neo-mercantilist authoritarian government ways. The authoritarian developmental state presupposes the mobilisation of public power but not based on the consensus of the people with regard to the planning and implementation of policies or institutions. For example, Park Chung-hee, who took power through a military coup in 1961, put economic growth at the top of his agenda to overcome poverty in the country. In the 1960s and 1970s, the Park Chung-hee administration established an export-led strategy that introduced capital and raw materials from abroad, processes with domestic cheap labour, produced goods, and exported them back to foreign countries. The quantitative expansion of the industry through input production factors accelerated further with the country's transition to capital-intensive heavy and chemical industrialisation in the 1970s. Along with low labour costs, funds raised by overseas loans were invested in steel, petrochemical, electronics, machinery, and shipbuilding sectors, and huge subsidies were given to industries and companies favoured by the central government (Choi, 2007). Thanks to this neo-mercantilist developmental approach, the Korean developmental state achieved exceptionally fast industrialisation through export-led industrialisation programmes. However, it also created internal contradictions with regards to state developmentalism. In particular, the essential problems of the developmental state were revealed through the causes of the 1997 financial crisis, such as political collusion, government finance, crony capitalism, and the moral hazards of the chaebol system (Fischer, 1998; IMF, 1998). These internal contradictions of state developmentalism ultimately became the key catalyst for the rationale of the prescriptions proffered

by the supra-national organisations; indicating that the Korean developmental state has been significantly impacted by and incorporated into global capitalism. Then, how can East Asian developmental states, where the institutional settings and economic activities are established through strong state intervention, co-evolve with the global system of capitalism?

Outwardly, the Korean experience could potentially be categorised as part of the CME. However, the comparative capitalism discussion has clear critical points that oversimplify various forms of global capitalism and does not take into account the historical-geographical contexts of countries. This classification does not explain Korean state type and governance, and more crucially, it does not help with elaborating on the fundamental and structural evolution of the state. In addition, there are fundamental conceptual differences between the CME and the developmental state. First, the primary goal of the developmental state is to achieve rapid and efficient economic development and industrialisation. The state's interventionist roles and control over private property are rationalised as part of the pursuit of the primary principle of economic development. In contrast, in European CME countries, social security and welfare are the priorities of the state's coordination system. It follows, that the goal of a coordinated market economy is to create stable relationships between various economic actors through secure and stable operations. Second, the developmental state has a plan-rational relationship with the economy; state ownership, planning, and institutional settings are rational means to achieve economic goals. In contrast, coordinated market economic countries have a market-rational relationship between the state and economy; the state plays a regulatory role that seek market efficiency and to minimise failure (Park *et al.*, 2012: 11-12). These deep-rooted differences between concrete empirical aspects of Korean state developmentalism and conceptualisations in comparative capitalism highlight the need to adopt a more dynamic, multi-scalar and multi-actor approach to explain the formation and evolution of the developmental state. On top of that, what this study pursues are a conjunctural and variegated understanding of capitalist states and their institutional settings in Korea. In geographic research, the first thing to do in forming a conjunctural and variegated perspective is to break away from the national-centric perspective. In much existent research on the developmental state, they are naturally embedded in the national scale analysis because the state model is itself the main subject of the study and its methodological preferences (Agnew, 1994; Brenner, 1999; Hwang, 2016). A question arises as to whether the Korean experiences have to be conceptualised more incisively and accurately given the limitations of the Voc literature. Even if the pluralisation of capitalism understands the capitalist system in a variety of ways, these categories do not explain evolution. Instead, understanding the evolution and interconnections between and across scales have to be mapped and explained, this then calls for an Evolutionary

Economic Geography as well as Geographical Political Economy approach.

Variegated capitalism emphasises different types of capitalism that are interconnected, not isolated from each other (Peck and Theodore, 2007). Global capitalism has developed by reflecting the geographical and historical contexts and pathways of each country, whether it is Korea, the US or Germany, and how they have interconnected with each other in a macroscopic context. State developmentalism is a developmental model that emerged in East Asian countries in the mid to late 20th century, with the state-led industrialisation and economic growth strategy becoming a research topic from a Western perspective. This was particularly the case with LME countries, and was recognised as another form of capitalism (Lim, 2020). It follows, that the Korean state developmentalism can be seen as a particular kind of capitalist variegation due to its different pathways of development in which the state intentionally and actively reorganised the economy, supervised production processes, and controlled capital. Such a developmental model does not fundamentally change capitalist processes and mechanisms but has a different mode of operation. Western countries, which have different development paths from Korea, also possess variegated development paths, whilst East Asian countries which have been regarded as possessing the same development model under the umbrella of the developmental state, have different developmental modes due to differences in their political, institutional, and social conditions, as well as their economic development patterns. Ultimately, the classification of the state itself is meaningless if the deeper geographical contexts of individual countries is not stressed. Instead, it is more reasonable to understand capitalist states by focusing on their geographical specificities and conjunctures. Moreover, and due to the ever-changing nature of the state, it is important to focus on their potential for change rather than adhering to fixed typologies. In this regard, positioning Korean developmentalism within variegated system of global capitalism as a fixed governing model is an argument to be challenged, as such the study argues that it should be understood as co-evolving one particular types of capitalist variegations.

2.3 Evolution of the developmental state toward a post-developmental state

Many studies that examine the developmental state as a product of the particular history and geographies in East Asia, conceptualise and categorise particularities in an inductive way. In contrast, this study shows how the dynamic Korean experience cannot be neatly categorised and conceptualised. Individual countries exist together in the variegated system of capitalism and have

compossibility as a consequence of contradicting and mutually reinforcing relationships (Jessop, 2011; Peck and Theodore, 2007). In other words, countries that are grouped into the generic term of the developmental state should be described in their own deeper contexts and relations within global capitalism. The same is true of the changes that have occurred in state developmentalism. Things began to change in the 1980s when domestic politics matured, and in 1997 when the Asian financial crisis triggered the transformation of its appearance. From this, scholars have talked about the death of the developmental state and its transition to a neoliberal capitalist state thereafter (Choi, 2007; Pirie, 2018). It is clear that neoliberalisation has had powerful impacts and that even the developmental state has yet no original form can be sustained to begin with; leading to economic and political reform since the 1990s. Nevertheless, the study raises fundamental questions; whether neoliberalisation has made the developmental state disappear and the post-developmental state appear in Korea. The question is whether the countries affected by the global scalar impacts, such as neoliberalisation and globalisation, have all changed to the same shape and have converged in a similar manner. From the point of view of this study, there would have been different effects and consequences for individual countries even with the same developmental state group because of the different institutional settings and development pathways of different states. It is also worth considering the speed of the changes and transformation. If the changes are abrupt and discontinuous, their causes tend to lie externally, whereas if they are gradual and incremental, their causes are more likely to be internal (Streeck and Thelen, 2005). From this point, despite the presence of significant external shocks such as the Asian financial crisis, the changes in Korea's developmentalism have appeared gradually and the emergence of post-developmentalism is still ongoing. Through the spatial (geographies of the changes) and temporal (speed of the changes) dynamics of the transformation of the developmental state, this study argues that it is difficult to conceptualise a post-developmental state by a collection of similar attributes.

Given that the argument of the transformation of the Korean developmental state is a static and fixed framework, the developmental state concept can be seen as being conclusively conceptualised and universally applied, and the post-developmental state is also neatly conceptualised but used as something different to state developmentalism. While there is not a precise demarcation between the developmental and post-developmental state, the perceived division is typically rooted in external shocks such as globalisation and neoliberalisation. Such a clear-cut and conclusive distinction between state developmentalism and post-developmentalism has limits in the understanding of the 'actually existing' Korean post-developmentalism. Above all, the clear distinction makes it appear as if the Korean post-developmentalism emerged just after

developmentalism and makes it suggests an oppositional relationship between them, which implies a chronological succession. Critiquing these points, the conceptual loosening of fixed typologies and attention to complex scalar events is then used as basis for understanding the changes of the Korean developmental state to make a number of salient points about variegated nature of capitalism that helps to introduce a number of sources of change and transformation regarding economic and industrial policy, corporate strategy and central-local governance. While globalisation and neoliberalisation have had enormous impacts since the late 1980s, they have not entirely overturned the institutional settings of the state due to the institutional layering and path dependence (Thelen, 2009). Moreover, since the legacy of the developmental state remains prevalent, the transition from the developmental state to a post-developmental state should be understood not as a comparison between two opposing concepts, but rather as a process and a variation of the Korean developmentalism.

2.3.1 Adaptation of the Evolutionary Economic Geography framework to the evolution of the Korean developmental state

The EEG utilises insights from Evolutionary Economics to identify theories and empirical research that distinguish it from evolutionary economics. Boschma and Frenken (2006) elaborate that the starting point of the EEG is to open ‘the black box’ of spatial organisation and aim to understand the spatial distribution of institutions and paths created over time. Specifically, within such spaces, there is the creation of new paths, as well as adaptation and adaptability to those paths which focus on the mechanisms of changes. In other words, the EEG analyses and explains processes that enable economic change and continuity in specific landscapes and regions, emphasising the spatial organisation of production, distribution, exchange and consumption (Boschma and Lambooy, 1999; Boschma and Martin, 2007). This EEG framework entails a focus on temporal transformations, and makes it well-suited for capturing the dynamics of the evolution of Korean developmentalism. Particularly, while conventional discussions might portray neoliberalisation merely as something that happened or was adopted in Korea, the EEG framework focuses on the mechanism of how it unfolded and shaped the changes of state developmentalism.

One crucial task of this study, in adapting the EEG framework to the evolution of the Korean developmental state, is to elaborate on path dependence and the lock-in of existing institutions within a geographical context and to examine of this path dependence across different geographical contexts is to evaluate whether ‘post-developmentalism’ exists. In a general sense, path dependency refers to outcomes or processes that are influenced by their own historical sequences (Martin and Sunley,

2007). Since the 1990s, economic-geographical research has focused on how old industrial regions have either escaped from, or remained locked into, their existing paths of both industrial structure and regulatory approach when faced with new technological advancements (Hassink, 2005; 2010, Hassink and Shin, 2005), which have consistently supported and demonstrated path dependence empirically. Moreover, Martin and Sunley (2006) outline the potential research scope of the concept of path dependence, and in so doing, highlight the importance of regional external economies of industrial specialisation, regional technological lock-in, agglomeration economies and regional-oriented institutions. They argue that there are numerous cases of path dependence at the regional economic level, and suggest that the uneven development patterns of regional development are path-dependent and co-evolve alongside national level dynamics. Concerning this specific concept of path dependence, the EEG fundamentally focuses on change related to institutional layering and adaptation to economic changes driven by various impacts (MacKinnon *et al.*, 2009).

While the triggers of change in Korean developmentalism and the ensuing economic transformation have been well-addressed so far, the institutional changes resulting from them have not received significant attention in either developmentalism or post-developmentalism. As noted in Chapter 1, this study does not solely focus on a discussion of what the post-developmental state is, and whether it has changed or unchanged. Instead, the primary focus lies in exploring how and why the changes and continuities in Korean developmentalism have occurred within the variegated capitalism framework. Viewing the changes in state developmentalism through the EEG framework focuses more on continuity rather than adopting the dichotomous approach of developmentalism versus post-developmentalism. In relation to this, the study thus argues that post-developmentalism should be understood as existing on a continuum with state developmentalism. In other words, post-developmentalism emerges as recombination of the institutional elements of developmentalism with neoliberal principles, making it both evolutionary and path-dependent. In particular, since state developmentalism, despite its side effects, represents an institutional ensemble that experienced economic success, the recombination of its institutional elements is expected to occur more strongly, reinforcing its path dependence (North, 2005). This, in turn, requires an examination of both developmental institutional novelties and legacies across various geographical scales with the evolutionary perspective; rather than emphasising the death of the developmental state due to the impact of neoliberalisation and globalisation. Thus, this study places greater emphasis on evolutionary path dependency and explores how it adapts to the shifting internal and external contexts of industrial and regional development institutions.

2.3.2 The developmentalist path dependence and neoliberal-oriented path creation?

There is a consensus that changes have occurred in the Korean developmental state. However, opinions diverge on how, and in what direction these changes have taken place. One of the various perspectives is the path dependent transformation of the developmental state (Kim, 2017a; Suh, 2020). From the path dependent perspective, the evolution of the developmental state appears to retain developmental attributes due to the existence of strong developmental institutional and customary inertia. The path dependence of state developmentalism does not, however, mean that changes are entirely absent due to the presence of locked-in developmentalist institutions and customs, but rather indicates that state policy and institutional practices often follow the rationality of state developmentalism. In addition to this, there is another argument that can be interpreted through the lens of path dependency. Mainstream economists studying the East Asian economic miracle have argued that Korea's adoption of export- and market-oriented economic policies enabled unprecedented economic growth (World Bank, 1993). In particular, they emphasise the importance of market-oriented industrial and economic policies such as easing import control, and export incentive measures in the 1960s. This argument implies that Korea was originally a state leaning towards a liberal market, and that through globalisation and neoliberalisation it pursued even greater external openness. The fact that Korea implemented neoliberal economic policies in order to incorporate into the global economy, (a process which solidified after the Asian financial crisis), can be interpreted from a path dependent development as not deviating from its existing trajectory. This argument, however, has certain limitations. For instance, while it is clear that the economic and industrial policies implemented in the 1960s-70s were aimed at enabling participation in global markets, viewing it as solely a *laissez-faire* state has limitations due to the roles of the state and the rationale of state's intervention in terms of those policy implemented processes that were not clearly market-oriented.

Whether viewed as a continuation of developmental institutionalism or as a continuation of a neoliberal state, it is crucial to note that state developmentalism itself is no longer a valid developmental model by which to explain Korea's growth trajectory changes (Stubbs, 2009; Wade, 2018; and see Ji, 2009; Pirie, 2005; 2008; Shin and Chang, 2003; Yoon, 2006). In relation to this, a number of arguments have been raised which suggest that the evolution of the Korean developmental state can be interpreted as adjustment of the path by neoliberalisation. Shin and Chang (2003) argue the dismantlement of the Korean developmental state through the financial liberalisation measures that have been enacted the mid-1990s, as well as the five-year financial liberalisation plan announced

in 1993, led to the development of the financial sector in Korea and Korea's marketisation and financialisation. Moreover, Pirie (2005) contends that Korea rapidly changed into a neoliberal country through the reorganisation of its financial supervisory system; including, the strengthening of the independence of the Bank of Korea (BOK) and the establishment of a financial supervisory body. Along with the changes in financial control measures, the weakening of Korean bureaucracy also supports the claims of the death of the Korean developmental state. Since the late 1970s, the division between the developmental coalition and the neoliberal coalition within the Korean bureaucracy begun to emerge. This division resulted in a weakening of cohesion between bureaucrats and it catalysed quickly adapting to a free-market system (Ji, 2011; Lew and Wang, 2007). In addition, measures to strengthen regulations on large conglomerates as well as the introduction of the Fair-Trade Act (an act to curb chaebol's concentration of economic power in the 1980s), the dismantling of the Economic Planning Board in the 1990s, the removal of market entry regulations, and the reduction of circular investment in chaebol after the financial crisis assisted the Korean developmental state to become a market-friendly country.

This view of Korea's evolution is convincing because many aspects of policy practices have actually changed and become market-oriented ways. However, there are also two limits to this claim. First, the market-centric perspective relies on the market-to-state dichotomy. This means that, even if market-friendly policies and institutional opening were implemented in the Korean (post)-developmental state, it does not follow that the developmentalist role of the state has disappeared. For instance, the transition from a component input economy centred on the finished product assembly industry to an innovation-led industry in the late 1990s-early 2000s can be seen to have been the result of the central government's intentional intervention in the face of an economic crisis. This shift in the growth path seems to have been based on a shift in the perceptions of economic officials who had read the market and tried to present solutions while monitoring the national economy (Kim, 2017b). As a result, the idea that the policies that were adapted quickly to the market may not have been made naturally by market logic, but as a consequence of the state's decision making cannot be ruled out. This would, in turn, suggest that markets and the states do not exist as counterpoints, but that the state can also play a neoliberal role through adopting market-friendly roles; a scenario which suggests that the developmentalist features still remain evident. Second, the path creation by neoliberalisation perspective assumes that neoliberalisation has just happened and appeared spatially the same. Neoliberalism, however, does not have the same effects wherever it occurs, instead its impacts are dependent on the geographical and institutional contexts in which it occurs. Neoliberalism aims to achieve economic progress through the pursuit of individual

liberalisation and market-centric coordination (Park *et al.*, 2012: 14-15); however, in the developmental state, the way to adopt neoliberalism is a matter than controlled by the state because of the state's strong interventional roles in the politico-economic system. This means that the developmental state has not adopted neoliberal principles in the manner of the great discourse of hyper-globalisation but has adopted it within a strongly regulated manner under states' politico-economic settings. While it is true that many economic and industrial policies have followed neoliberal principles due to the neoliberal prescriptions enacted after the financial crisis in Korea, there are still many developmental legacies within policy principles. As a result, it cannot be assumed that all developmental legacies have disappeared.

Even if the developmental state is influenced by neoliberalisation, it does not signify the death of state developmentalism in Korea. Considering both the path dependency and path creation interpretations of the evolution of Korean developmentalism, it can be suggested that it has been difficult for the Korean state to create a new path departing from state developmentalism. Even as market logic strengthens, a degree of change in the developmental principles and roles of the Korean state is the key point by which to interpret the evolution of the Korean state developmentalism. Furthermore, the acceptance of neoliberal principles by the developmental state can be seen as an adaptation to neoliberalisation in the developmental manner driven by national imperatives, rather than representing a complete departure from its existing path.

2.3.3 The diverse path of the evolution to post-developmentalism created by the East Asian developmental states

Common characteristics of East Asian countries, excluding China, that emerged after WWII and embodied a late-industrialisation, catch-up model, and economic nationalism collectively constitute the developmental state. State developmentalism, however, represents a developmental model that can applied to the specific spatio-temporal settings of East Asia at that time, making it challenging to universally apply. Moreover, the developmental model evolves dynamically according to changes in both domestic and international conditions. In reality, since the 1980s, these countries began to move away from being typical developmental state influenced by globalisation and neoliberalisation, and started to move towards being market-centred neoliberal state but in diverse ways that were tailored to the specific settings of each of them.

Japan, which exemplifies the concept of the developmental state, began to undergo changes in the 1980s. Having achieved rapid industrialisation in the post-war period, the Japanese, with its

tremendous export competitiveness and confidence as a global economic powerhouse, gradually shifted away from developmentalist policies and strengthened its regulatory state characteristics (Yoon, 2005). For example, Japanese industrial policies have shown a tendency to change and shrink. Typical industrial policy tools for nurturing strategic industries, such as financial controls, subsidies, tariffs, trade quotas, and so on, began to diminish from the 1970s onwards. Since the 1980s, the prevailing trend of Japan's industrial policies have shifted toward inducing the appropriate withdrawal of obsolete or limited industries and transitioning to comprehensive and functional policies that encompass the entire industrial sector (Yoon, 2020). For instance, Japan's shipbuilding industry began to decline in the late 1980s due to a government restructuring programme. Merges occurred among large shipyards that lost competitiveness due to the rise of the Korean shipbuilding industry, and measures were taken to phase out R&D and design personnel from the industry (BOK, 2016a). This can be seen as a representing a shift from protecting the shipbuilding industry from a government perspective to a position whereby its fate was instead entrusted to the global market. In addition, there have been cases where government intervention has proven to be ineffective. In the 1980s, a public-private project which sought to foster the electronics industry (computer hardware and software) failed due to the inadequate coordination of interests between participating companies; the previous model of nurturing the heavy and chemical industry was applied without proper adjustment (Han *et al.*, 2001). Since the 2000s, additional efforts to implement neoliberal policies have taken place. The Japanese government implemented significant deregulation policies to address the aftermath of the housing market crisis in the 1980s as well as the prolonged economic recession. For instance, there were deregulation policies that sought to stimulate corporate investment, a lifting of restrictions on the reshoring of overseas Japanese businesses, and policies enacted to help create more flexible labour market. In addition, efforts towards the privatisation of government-owned enterprises were also enacted; resembling the approach adopted by Anglo-American style neoliberal states (Yoon, 2020).

With regards to Japanese state's efforts to embrace neoliberal principles, some scholars have argued that Japan has moved away from state developmentalism towards a neoliberal state (Nakano, 2020: 338). However, it is necessary to re-evaluate whether it has become a neoliberal state in a theoretical sense. The reason for this is that Japan has adopted and implemented neoliberal principles more as a matter of convenience rather than fully embracing the logic and ideology of neoliberalism. It appears that Japan's adoption of neoliberal principles has been more a consequence of a deliberate policy-making process rather than a natural emergence. In other words, Japan can be seen to be transitioning to post-developmentalism by actively promoting neoliberalisation as a tool for creating

a new development path. This indicates that Japan modified its existing development path and created a new path more out of the state will than a clear trigger from political economic affairs.

Taiwan, like Japan, has also shown a tendency towards weakening state developmentalism due to internal and external environmental changes since the 1980s. In particular, since the 1990s, the acceleration of Taiwanese companies' investment in China has led to a slowdown in Taiwan's domestic economy (Pirie, 2018). In addition, financial institutions and entrepreneurs in Taiwan have argued for more comprehensive economic liberalisation and deregulation. Nevertheless, and when compared to Japan, Taiwan has demonstrated a more pronounced continuity of the framework as well as institutional continuity of state developmentalism (Chu, 2013). Specifically, pilot agencies such as the Council for Economic Planning and Development (CEPD) and the Industrial Development Administration of the Ministry of Economic Affairs have continued to be responsible for planning and implementing economic development and industrial policies. They have pursued sustainable and proactive industrial policies for industrial upgrading and enhancing international competitiveness. Additionally, there has been a noticeable state-led approach to financial controls, with the government actively investing in key industries, such as semiconductor and petroleum industries, through industrial development funds via central banks and sovereign wealth funds (Yoon, 2020). Despite the persistence of state developmentalism in Taiwan, its appearance has not been retained in the manner that it existed during the developmentalism era. Instead, there has been adaptation to the dominant trend of neoliberalisation and partial adoption of neoliberal policies that are targeted towards attracting foreign investment. For instance, deregulations has occurred related to foreign investment, the financial sector, and monopolistic industries, (such as telecommunications and petroleum), as well as privatisation of State state-owned enterprises (SOEs) and tax reduction policies (Chu, 2013). Nonetheless, these measures have only been partially implemented and complete neoliberalisation is not evident.

Taiwan's neoliberalisation was not in the purest sense of neoliberalism, instead, unlike Japan, Taiwan has more path dependent adaptation to neoliberalisation, while pursuing neoliberal principles selectively in specific sectors and industries. Both Japan and Taiwan have partially adopted neoliberalisation out of necessity, but Japan has created a new path through this adoption, while Taiwan has shown greater ongoing dependence on its existing path. This indicates that Taiwan's neoliberalisation was pursued as a response to contextual needs, rather than being a wholesale adoption of neoliberal principles. This, in turn, suggests that the Taiwanese post-developmental state does not necessarily equate to being a neoliberal state, but is instead, close to path dependent

neoliberal developmental state.

As seen through the dynamics of the evolution of East Asian developmental states, the developmental states have all been strongly influenced by neoliberalisation. However, none of these countries have fully converged towards the typical neoliberal state by entirely departing from their original paths as economists argued. Instead, they have created different development paths based on their individual historical and geographical contexts. Given this, there is a need to revisit the dynamic changes of state developmentalism in East Asia with reference to geographical contextualisation. If the emergence of a post-developmental state signifies the demise of the developmental state and a transition towards a neoliberal state, then it becomes difficult to elaborate on the path dependent development features of East Asian countries and their legacies. It follows from the same, that understanding post-developmentalism through dynamic movements in which countries exhibit various patterns of path dependence and creation is significant, and implies that the evolution of East Asian state developmentalism is not a linear progression but a complex process intertwined with geographical conjunctures and global contexts.

2.3.4 Actually existing Korean post-developmentalism: Variegated evolution of conceptual accounts and empirical realities

Whilst, through the preceding discussion on how neoliberalisation unfolded in East Asian developmental states, this study advances that East Asian countries have been greatly influenced by neoliberalisation, this does not necessarily imply that there has been a transition to the neoliberal state and at the same time, the appearance of neoliberal state does not represent the emergence of the post-developmental state. In addition, despite experiencing the influence of both state developmentalism and neoliberalisation during a similar period, it is suggested that individual state developmental paths vary depending on individual countries' institutional settings. In this regard, understanding the transformation of Korean state developmentalism not merely as a transition to single model of the post-developmental state but as a process of gradual evolution would be more appropriate. Thelen (2003; 2004) criticises the punctuated equilibrium model for its clear definition between institutional stability and institutional change, arguing that it fails to adequately explain institutional change where continuity and change are intertwined. Similarly, this study contends that it is difficult to draw clear distinctions when analysing the institutional changes towards post-developmentalism, which emerge from the complex interplay between state developmentalism and neoliberalism. Then, a question arises on what is actually existing Korean post-developmentalism. In Korean, the 'post-' prefix is typically interpreted in two ways: one is 'escape' and the other is 'late'.

The former focuses on discontinuity and clear distinctions from the previous state, while the latter tends to perceive it as a continuous next stage after the previous. Existent discussions on Korean post-developmentalism, they mostly accept the latter interpretation. In other words, while some view it as having completely departed from the developmental state due to the influence of neoliberalisation, the post-prefix in Korean implies a fundamental assumption of continuity with developmentalism; indicating a mismatch between conceptual accounts and empirical realities. What this study aims to highlight is not simply continuity or discontinuity of state developmentalism, but rather how and why the interpretation of the post-prefix is applied within the process of changes. As Sheppard (2011) states, 'post-something' theories reject meta-narratives and approach knowledge as being situated within contexts and contingencies. Similarly, state developmentalism and post-developmentalism are constantly and partially evolving in response to changes within internal and external settings, as a result, the evolutionary process constitutes actually existing a post-developmental state.

In addition, it is important to pay attention to the discussion of Streeck and Thelen (2005), who emphasise incremental change of institutions. They focus on cases where gradual institutional changes lead to transformative outcomes, explaining this through institutional displacement, layering, drift, conversion and exhaustion. Among these, institutional layering is particularly noteworthy regarding the changes of state developmentalism. When problems arise in the functioning of existing institutions, institutional actors modify them by complementing or refining them while simultaneously introducing new institutions. These new institutions do not directly weaken the existing ones but rather coexist in layers, allowing them to grow rapidly than the old institutions without resistance and eventually bring about fundamental changes to the institutional structure over time (Heijden, 2011). State developmentalism influenced by neoliberalisation can exhibit similar characteristics, but fundamentally, these two do not simply form separate layers. Instead, they geographically interact and intertwined, creating gradual variations and evolution. Thus, the process occurs incrementally, resulting in modification to existing institutions rather than fundamental institutional transition, and this phenomenon can be referred to as the emergence of post-developmentalism.

This contextual and geographical variegation, along with the gradual institutional changes, creates a discrepancy between the concept and reality of post-developmentalism, necessitating re-approach of post-developmentalism. Ji (2015) confirms that there is little disagreement regarding the changing role of the developmental state, and also notes that there is no clear definition of its nature. Amidst various discussions on neoliberalisation in East Asian countries, the developmental state has demonstrated a much longer lifespan than anticipated from a neoliberal perspective, and has also

shown resilience in adapting to the trends of globalisation and economic liberalisation (Bae, 2023). What can be inferred from this is that there is no precise essence to Korean post-developmentalism. While changes have indeed occurred within state developmentalism following neoliberalisation, there is no clear consensus on the exact form of these changes. Moreover, it is evident that rather than exhibiting something entirely new, Korean post-developmentalism has revealed stronger path dependent practices even within the post-developmental state. As such, understanding post-developmentalism as a variant form of state developmentalism within capitalist variegation, rather than something entirely new, appears more valid.

Korean post-developmentalism is challenging to define in a structured and conceptualised manner, as its approach varies depending on how the developmental attributes co-evolve with various phenomena. The attributes of Korean post-developmentalism are outlined in Table 2.2. In Korea's evolution from state developmentalism to post-developmentalism, the influence of marketisation, financialisation, and neoliberalisation is prominent (Lim, 2018). Fundamentally, whether a developmental or post-developmental state, a national development framework prioritises economic growth; however, there are difference in focus between merely quantitative growth and considering qualitative growth such as industrial structural advancement. In addition to this, one of the key characteristics of a post-developmental state is the retention of embedded autonomy and capability. While Korean post-developmentalism does not exhibit the same degree of autonomy as developmentalism, it retains a certain level of embedded autonomy. This is because Korea, with its experience of developmentalism and its developmental mindset, has found it relatively easier to attain state governance autonomy through hegemonic projects (Thurbon and Weiss, 2016). Nevertheless, through the development of democracy and the growth of diverse societal forces, maintaining existing levels of embedded autonomy has become challenging; resulting in a limited form of state autonomy, or quasi-embedded autonomy. In terms of policy practices and corporate activities, while there have been changes in policy rationale and corporate governance, many aspects still share similarities with traditional state developmentalism. For instance, in terms of national industrial and spatial policies, the shift has been from a centralisation and efficiency focus to a more integrated approach between central and local; an approach that has aimed to achieve more balanced development. Nonetheless, it is clear that the emphasis on the role of the central government and, at the same time, its ability to implement policies has remained limited. For corporate activities, while there has been a shift from receiving benefits and controls under the state's industrial nurturing plans to being more responsive to international situations and market dynamics, close ties with the central government have been maintained.

Table 2.2 The developmental state and a post-developmental state of Korea

The Developmental State		A Post-Developmental State
International Economic and Geopolitical settings	Bretton Woods System Cold War Moving toward neoliberalism and globalisation	Dollar-Wall Street System (Economic) New Cold War Moving back to protectionism and regionalism
National Development Framework	Growth of national wealth through extensive growth Quantitative expansion of the national economy Catch-up with advanced industrialised countries State roles in protecting domestic industries	National development through extensive and intensive growth Quantitative and qualitative improvement of the national economy Structural upgrade of domestic industries State roles in participating global industrial network and competition
State Autonomy and Capabilities	Embedded autonomy Strong state capabilities through centralised power and bureaucracy State capabilities to often surpass the supra-national organisations in domestic market (market distortion)	Quasi-embedded autonomy Smaller of but still strong central government State capabilities to deal with the supra-national and transnational organisations within a country
Industrial Policy Rationale and Instrument	Efficient economic development and industrialisation Comprehensive economic development plan Government selective industrialisation Nurturing national champions	Balanced economic and national growth Government-centred industrial policies still valid to expand national exports Fostering new industries to strengthen national industrial competitiveness Emphasis on governance of various organisations
Spatial Policy Rationale and Instrument	Central planning agency-led development Efficient resource utilisation Rapid territorial development Hub and spoke development centred on major industrial facilities	Centralised yet collaborative with local governments Targeting balanced territorial development due to concentration in the capital region New hub and spoke development for devolution and decentralisation

Control of Industrial Capital	Control over foreign capital through the government owned banks Sensitive response to foreign-exchange reserves Curbs on inward FDI to protect domestic industries Adjustment of exchange rates for exports and foreign loans	Complex but transparent foreign capital management by multiple financial organisations Sensitive response to foreign-exchange reserves Active efforts to attract inward FDI Financialised and marketized foreign capital
Corporate Governance and Networks	Guaranteed firm's exclusive and oligopolistic status by the state Strong family-owned <i>chaebol</i> alliance Industrial structure centred on relations between large firms and subcontractors Globalised production methods centre on GCC and trades	Diversified firms in a single industrial sector Strong family-owned <i>chaebol</i> alliance but regulated by supervision system of the central government Strengthening shareholder capitalism Transnationalisation of product facilities and methods and partly participating in GPNs
Corporate Financing	Government grants and low-rates loans Government-guaranteed foreign loan financing Policy financing on specific industrial sectors Tenuous role of the domestic individual stock market	Loan from the state-run policy banks Diversification of corporate financing Expansion of inward foreign equity investment Relatively tenuous role of the domestic individual stock market
Local Government Autonomy and Capabilities	Restricted autonomy of local governments Role as a sub-organisation of the central government High fiscal dependence on the central government	Expansion of local autonomy but still low capabilities Expanding governance with the central government High fiscal dependence on the central government except some regions (capital areas and some industrial regions)

Source: Author's own.

Given these points, clearly distinguishing between the Korean developmental state and post-developmental state is challenging, as is defining the exact timing of the transition. Ultimately, the evolution from state developmentalism to post-developmentalism has not been a singular or linear process, but rather a path dependent process that has entailed the co-evolution of those multi-scalar elements that constitute the Korean economy. Understanding Korean post-developmentalism as such would be more appropriate approach. The product of this dynamic evolution is actually existing post-developmentalism in Korea, and to view it within variegated capitalism frameworks, an appropriate lens is required. From the perspective of this study, geographical political economy is considered a suitable framework to openly and dynamically examine the structural evolution that has occurred in the state developmental model.

2.4 Evolutionary approach blended with Geographical Political Economy to explain Korean post-developmentalism

Studies after the 2000s have included research on the transformation of the developmental state, with many works emphasising the continuity of state developmentalism as a path dependent process (Jang, 2020; Kim, 2017a; Koo, 2010). At the same time, however, these studies have shown limitations when it comes to addressing the evolution of the developmental state. The existent works clearly distinguish between the developmental state and post-developmental state, and emphasise the common traits in the differences that exist between the two developmental models. This implies that although the developmental state may transition into a post-developmental state through path dependent processes, focusing more on changed features of the developmental state than continued characteristics. Second, there is no reference to multi-scalar geographical connections in the evolution of state developmentalism, which has limited the capturing of various aspects of the evolution that appear to lie beyond and behind national level practices and actors. For example, even if there have been changes in a central government's practice, there is a significant possibility that they may not have been applied properly at industry or subnational level, and there is also likelihood that subnational actors play significant roles and impact the national level actors (Hwang and Park, 2014). Additionally, there is ample possibility for the impacts at global scale directly reach even subnational scale.

This study addresses these issues through the evolutionary perspective in order to examine the changes that have occurred in the developmental state. It argues that post-developmentalism

emerges not simply due to abrupt triggers leading to a shift from developmentalism, but rather as a result of dynamic interplay with internal and external settings including globalisation, neoliberalisation and the maturation of democracy. In other words, post-developmentalism is seen as a product of historical-geographical mixture and ongoing interaction with state developmentalism, with the consequent changes in developmental routines considered as an incremental evolution. In addition to this evolutionary approach, post-developmentalism is not merely an institutional change from developmentalism, but a phenomenon that emerges through a combination of numerous contingent factors including the export-oriented industrial operation and production principles and the developmentalist mindset derived from the success of Korean state developmentalism. Since it exhibits a wide range of evolved forms, it is important to understand how it is shaped through various relational changes rather than solely explaining it reductionist way -as with developmentalism (Pike *et al.*, 2016). In this regard, simply emphasising institutional evolution also possess clear limitations in that focusing solely on institutional change may lead to assessing only the outcomes. Given this, this study blends a geographical political economy approach with the EEG approach and in so doing, emphasises the process of changes to economic landscapes whilst also elaborating on the unique geographical institutional environmental shifts that emerged in this process.

2.4.1 Why is it difficult to explain the evolution of the Korean developmental state solely through the Evolutionary Economic Geography

The evolution of the developmental state is described as more than just a change in the national development model, extending to the co-evolution of various institutions, as presented in the preceding section. While the EEG perspective was introduced to elucidate the changes of the Korean developmental state in this study, some limitations inherent in the EEG approach also pose constraints. There are three main challenges on the use of the EEG in the evolution of state developmentalism. First, the EEG approach is sometimes an overly deterministic view of the changes that occur within the economic landscape (Hassink *et al.*, 2014). The EEG relies on path dependency to elaborate on how historical conditions shape current economic landscapes and future possibilities (Martin, 2010). This approach can marginalise changes to the socio-political environment, and may suggest that once the development path is set, deviations are difficult. While path dependency is a significant concept that can explain continuities of spatial changes, it can also lead to a de-locking from the current path and create new potentials that are dependent on socio-political settings (MacKinnon *et al.*, 2019). In the study of the developmental state, an excessive emphasis on path dependency can result in a failure to properly capture novelties brought from the evolution. The focus of this study on the transformation of state developmentalism is not merely about whether the existing path was

sustained or a new path created, but rather on the variegated processes and outcomes that embody the diverse political and economic dynamics occurring throughout the transformation. Thus, the study notices this challenge of the path dependent approach of the developmental state referring that Korean state developmentalism remains unchanged with post-developmentalism merely being influenced by influence of neoliberalisation and globalisation.

Second, the EEG tends to downplay the importance of institutions (MacKinnon *et al.*, 2009). The EEG approach assumes changes that are primarily driven by firms in economic landscapes happen in neutral spaces, and focuses more on the evolutionary practices that occur within neutralised space (Chu and Hassink, 2023). Indeed, the notion of neutral spaces can be understood within the context of continental Europe, where the EEG was conceptualised; however, applying this approach directly to the Korean developmental state presents a few challenges. In the developmental state, where political and institutional contexts are crucial, this decontextualised approach from East Asian countries may divert attention to the process of evolution itself, potentially overlooking vital contextual influences. The evolution discussed in this study refers not only to changes in economic phenomenon but, above all, to the co-evolution which exists between such economic landscapes and changing institutional contexts. It follows, that it is crucial to elucidate how the mutual interactions between institutions and economic results manifest and how such interactions result in changes (or lack thereof) in state characteristics (Gong and Hassink, 2019). This study of the evolution of state developmentalism circumvent this limitation because the changes to post-developmentalism include dynamic institutional change, and these institutions are constituted by the interactions of various (geographical scalar) actors. The evolution of institutions is not the result of the role and will of the state actor but rather a product of dynamic interactions, continuously unfolding. It follows, that it is imperative not to underestimate institutional contexts.

Third, the EEG marginalises interactions at various geographic scales. The conventional EEG approach emphasises economic outcomes at the meso- or micro-level by focusing mainly on corporate innovation and evolution and how they occur within regions at the firm level (Hassink *et al.*, 2014). Nevertheless, macro-environmental changes that have contributed to such transformations should also be given due consideration. This is because while detailed case studies at the micro-level are invaluable for understanding nuanced economic evolution at specific locales, they can sometimes isolate such phenomena from national level institutional changes as well as global economic and geopolitical dynamics. For instance, the innovation and evolution of the semiconductor industry in Korea can be explained from the evolutionary perspective; however, factors that enabled the industry to thrive or encounter crises, such as industrial policies, changes of global production networks and

geopolitical settings, are closely related at higher geographic scales. Simply explaining their evolution at local and regional and firm level tends to marginalise contextual factors at multiple scalar settings which, particularly within the Korean case need to be taken account of (Mackinnon *et al.*, 2009).

These three challenges highlight that the EEG is hard to be directly applied to the evolution of the developmental state; rather, it is necessary to start with a contextualisation of the changes of the developmental state and to understand the co-evolution of various institutional settings surrounding it. A holistic and nuanced understanding of the evolution into post-developmentalism is required, and fine-tuning of the evolutionary approach is necessary for this purpose. For the contextualisation and holistic approach to the evolutionary analysis of the developmental state, this study blends the EEG and the GPE approach.

2.4.2 The Geographical Political Evolutionary Economic Geography (GPEEG) approach to the Korean (post)-developmental state

The geographical political economy has its roots in critiques of Marxian variants of thinking -such as economism, reductionism, and structuralism, and pays attention to the so-called 'post-prefixed' thought (Pike *et al.*, 2016), which rejects meta-narratives and accepts post-modern, post-structural, and post-colonial approaches that all knowledge is situated, and partial (Sheppard, 2011). As GPE brings together diverse approaches, it is pluralistic and includes a variety of approaches (Hassink *et al.*, 2014). Therefore, rather than having a unified, defined opinion about the GPE, it has been used in various forms depending on subject matters (Martin and Sunley, 2015). Although the GPE is difficult to define, this does not mean that the GPE is an unclear or ambiguous theoretical concept. According to Hassink *et al.* (2014), the GPE is a theoretical framework sheds light on the relationships between the state, labour, and capital and the inherent tendency of capitalism to generate uneven territorial development and the variegated capitalism framework is one of examples of the GPE approach. This holistic and post-structuralist GPE approach can be blended with the EEG; yielding conceptual benefit. The GPE offers insights into multi-scalar spatial dimensions of economic processes, and emphasises the role of geography, institutions, and power relations in shaping economic outcomes (MacKinnon *et al.*, 2009), whilst the EEG offers insights into the dynamic processes of economic change and innovation with a core focus on subnational level. By considering the multi-scalar aspects of economic activities and their interplay with political and social forces, the GPE provides a nuanced understanding of how the developmental state evolves within specific geographical contexts and the EEG can be supplemented its limitation by contextualisation. By blending the GPE and EEG (GPEEG), this study achieves a holistic and nuanced understanding of the evolutionary processes of the Korean

developmental state, which emphasises that Korean state developmentalism is not viewed as an institutional whole undergoing a fundamental transition followed by neoliberalisation, but rather as a collection of diverse elements evolving in variegated directions and through different purpose and mechanisms.

Considering this GPEEG approach, a few reflections can be found in the evolution of the Korean developmental state. First, the GPE takes capitalism as a form of social, economic, and political organisation and interprets its geographies as emerging from the coevolution of economic, social, political, cultural, and biophysical relations and processes (Castree, 2010, cited in Pike *et al.*, 2016: 127). The evolution of the developmental state is not simply a result of changes to either internal or external political and economic settings but rather a co-evolution of the various political, economic, and social factors influenced by it. Through the GPEEG approach, the underlying mechanisms of the evolution can be examined. Second, the GPE views the economy as being comprised of socio-spatial relationships and emphasises the mutually constitutive relationships that exist between actors and structures. The transformation of the developmental state can be viewed through economic institutional changes -which alter the spatial unfolding of institutions and influence the behaviour of various actors operating within them and *vice versa*. These changes, in turn, drive the continuous evolution of institutions and actors' behaviours and through so doing illustrate the dynamism of the changes inherent within state developmentalism. These characteristics of the GPE emphasise large systemic processes and the big structures of economy; these large systemic processes and structures play key roles in shaping the processes and directions of institutional evolution (Martin and Sunley, 2015). In this regard, the GPEEG is considered to be an alternative approach by which to understand the evolution of state developmentalism, particularly when it is used to address the challenges of the EEG approach pointed out earlier.

Meanwhile, the value of the GPEEG approach is maximised when addressing various geographic scales. To understand the evolution of economic institutions, one must understand the social-spatial relations, economic governance, institutional settings, and more, which exist and extend across different scales. GPE's multi-scalar approach to grasping the dynamic interactions that exist across different scales enhances understanding of the evolution of state developmentalism (Sonn and Hsu, 2020). It moves beyond solely considering the national scale and recognises that institutions interact across diverse scales such as the national state, corporate and subnational state. This multi-scalar perspective is closely linked to issues of methodology; conventional studies on the developmental state have tended to focus on state policies and projects, and have often become trapped in methodological nationalism (Park, 2006). By the same token, research on post-

developmentalism has also tended to focus on changes at the national scalar institutions and practices -there has been relatively little attention given to the role of the firms and local governments. In addition to this, a holistic understanding of the causal relations, mechanisms and processes also enhances the worth of the GPEEG framework. The GPE approach looks at the events from a process-based and contextual viewpoint rather than limiting analysis to a focus on specific events (Pike *et al.*, 2016). For example, instead of just considering the changes that result from a particular policy shift, it involves expanding the analysis to understand the broader contextual factors surrounding the changes. Through this multifaceted understanding, this study extends case analysis to encompass the evolution of state developmentalism. This value of the GPEEG approach enables this study to understand the evolution of the Korean developmental state in a process-oriented manner, rather than reaching a close-ended conclusion on the post-developmental state. It, in turn, facilitates contextual and conjunctural understandings of the emergence of a post-developmental state in Korea.

2.5 Conclusions: A research theoretical framework

The developmental state concept is a useful means by which to explain the rapid economic growth of East Asian countries, but it is difficult to generalise globally. The reason for this is that the concept was created to elaborate on the development processes of certain countries in East Asia. Since they are deeply related to the spatio-temporal contexts which exist at the time of their growth, it is difficult to apply them to other geographical and historical settings. Furthermore, there are significant differences within the developmental states of East Asia. For example, Japan and other developmental states had a fundamental difference between already developed country and developing countries, and even, there were differences in development trajectories among the developing countries. Korea and Taiwan had a development trajectory close to the prototype of the developmental state, whereas Hong Kong was closer to a free-market model than to state-led industrialisation model, whilst, Singapore implemented state-led industrial policies, but the role of multinational corporations (MNCs) was more important than the industrial policies (Hwang and Park, 2012). It follows, that it is unreasonable to apply the concept to individual countries without understanding their unique contexts. The same is true with regard to the evolution of state developmentalism into post-developmentalism. Variegated system of capitalism is formed under diverse geographic contexts, and viewing them through a predetermined concept can lead to oversimplification.

To address the same, this study advances an alternative framework by which to view and understand the evolution of the Korean developmental state. This conceptual framework is shown in

Figure 2.1. The study first begins with (a) critical engagement of the conventional approach to the post-developmental state, and adopts a critical stance to the view that Korea is a neoliberal state that has shown considerable financialisation and liberalisation in response to the influence of neoliberalisation and economic globalisation. The problems with this conventional approach that this study identifies are, first, the state is seen as a subject that just adapts to changes at the global level with limited interactions. In other words, neoliberalisation and globalisation were transmitted to Korea from the 1980s and throughout the 1990s, and the state adapted to these influences and changed national and subnational level institutions and policies to reflect neoliberal principles. Second, it simply draws the institutional changes of the state with the numerical economic indicators. Like the criticism of GDP-ism, there are various contexts in which quantified economic indicators are not noted. The conventional view of the Korean developmental and post-developmental state overlooks numerous causal relations and mechanisms under institutional dynamics that have appeared during the country's transformation from the developmental state to a post-developmental state.

The alternative approach proposed by this study is a contextual and conjunctural approach to the evolution of the Korean developmental state. Through (b) of contextualisation of the capitalist economy, the study re-positions Korean developmental state within the variegated system of capitalism. Korea, which has traditionally been classified as CME within the varieties of capitalism framework, is repositioned to a unique kind of capitalist variegation. This study then elaborates upon how it has adapted to global-scalar trends of globalisation and neoliberalisation, and then, changes in the developmental state are examined as economic activities at various geographical scales. Firstly, it analyses the macroeconomic context and industrial policies as well as changes in the role of state agencies at the national scale to explain the unfolding of neoliberalisation in Korea. Secondly, at the industrial scale, the study focuses on the path dependence of the developmental production methods and examines post-developmental strategies in response to changes in the global industrial environment. Lastly, the study analyses the roles of local and regional governments in the course of dealing with industrial development and adapting to new global industrial settings. Through its multi-scalar analysis, this study identifies that while Korea's institutions and policies have undergone considerable changes due to neoliberalisation, legacies and path dependencies appear in many aspects of production patterns and central-local governance. In addition to this, state-firm relations exhibit a different pattern compared to state developmentalism; indicating that Korea's developmental trajectory is not simply a continuation of the past. Ultimately, the intricate unfolding and dynamism of the evolutionary patterns between developmentalism and post-developmentalism constituted the objective this research conceptual framework. Through this research conceptual

framework, the study highlights that the Korean post-developmentalism cannot be neatly conceptualised or characterised like concept of the developmental state and conventional research that has attempted. Instead, it should therefore be viewed through a holistic and contextual framework, this then leads to an understanding of post-developmentalism as a constantly evolving phenomenon rather than a fixed governance model.

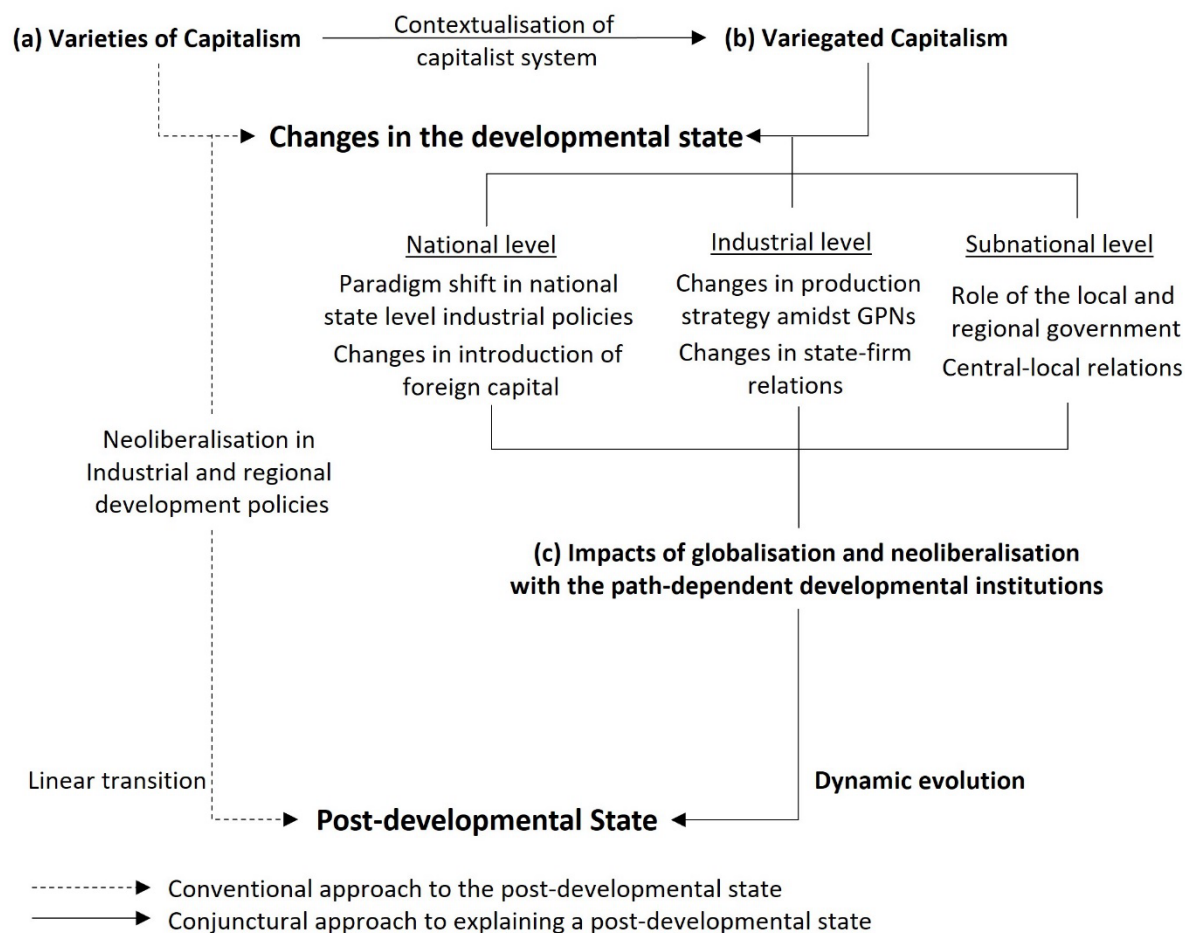


Figure 2.1 Research framework: The Korean developmental state in variegated capitalism and its evolution to a post-developmental state
 Source: Author's own.

Chapter 3. Methodology

3.1 Introduction

The purpose of this study is to elaborate on the evolution of the state developmental model with contextual and conjunctural understandings of its geographies. The study explains the evolutionary process and features of the Korean (post)-developmental state through the shipbuilding and semiconductor industrial and regional development policies. The study began with an observation that Korea, an archetype of the developmental state, has been experiencing path-dependent growth and change with legacies of state developmentalism while collaborating with neoliberalisation. Global capitalism, which evolves towards neoliberalism, is widely believed to be converting individual national characteristics; however, quite the contrary, capitalism exists in variegated forms. For instance, the developmental state, one of the variegations of capitalism, possesses its own unique features and developmental logic, becoming one of the pieces of the puzzle constituting global capitalism. As shown in the research framework of this study, the puzzle pieces that constitute capitalist variegation are always changing; this change is not static and linear, but dynamic and deeply engaged with the geographical-historical layered contexts, representing a path dependent evolution. Alongside this, these characteristics are not fixed but rather constantly evolving. Such evolution is due to not only external factors but also internal political, social and economic mechanisms, necessitating methodological considerations to track these ever-changing contexts. To this end, there is a need for an evolutionary approach blended with the GPE framework to better understand the state developmental model. In addition, it is important to develop a method that grasps the particular mechanisms that appears at various scales. This chapter presents and justifies the methodological considerations for the direction and aims of this study.

Before a discussion of the same, it is necessary to point out the conventional approaches of the developmental state literature. To date, a number of works have studied the transitions from the developmental state to post-developmental state in East Asian countries. Such works have deviated from Western centrality regarding the rescaling and the development of capitalist states. Despite this contribution, there are limitations associated with the body of existent works. First, methodologically, existent literature has fallen into methodological nationalism that has emphasised the national scale but marginalised other geographic scales. Second, the studies understood the changes in the developmental model as a 'transition' that views the changes through clearly distinguished and fixed perspective between developmental and post-developmentalism. These limitations raise methodological concerns about how to approach countries that have undergone significant

transformation into a post-developmental state. In order to tackle these issues, and as shown in Figure 2.1, this study adopts an approach that blends the EEG perspective with the GPE framework. Through so doing it emphasises the characteristics and development strategies of the state are incessantly co-evolving with the legacies and geographical conjunctures and elaborates on the industrial and regional development institutions and policies in Korea. Particularly, the study empirically investigates how the policies and institutions of Korea's shipbuilding and semiconductor sectors and their industrial regions have interplayed with various geographic scalar impacts and actors during the evolutionary process. It also attempts to capture what the momenta of each specific mechanisms are, and how and why new paths were (not) created by path dependent developmentalist legacies.

This study uses a cross-sectoral comparative case study method. Specifically, the main task of the comparative case study is to juxtapose similar and/or different ways of development between the two sectors and regions in terms of industrial and regional development institutions and policies and to elaborate on the diverse adaptation processes over the evolution of the developmental state. In addition to this, the study uses a historical and conjunctural-based methodological framework (see Figure 2.1), which can be addressed by the GPEEG framework. Fundamentally, it is necessary to understand the historical process of development and to identify specific geographical contexts and conjunctures that stand out in a specific time and space.

The remainder of this chapter justifies the methodological framework of this study through the following sections. First, it establishes the ontological and epistemological position of the study, which presents the ontology and epistemology based on critical realism in section 3.2. Second, it presents the study's research methodology. It suggests methodologies suitable for the GPE framework with extensive and intensive research methods and comparative case study methods in section 3.3. Third, it presents the study's data collection techniques of analysis in section 3.4. Thereafter, section 3.5 elaborates on ethical considerations and the positionality of the researcher. Finally, section 3.6 concludes the chapter.

3.2 Ontological and epistemological Positioning

While setting the methodological strategies of this study, it is important to elaborate on the ontological and epistemological positions adopted within the methodology. Ontology determines what a dissertation studies and evokes interest in revisiting what is believed to exist. Epistemological considerations on how to view it led to the establishment of a systematic approach from a similar but

different framework. Numerous discussions within regional sciences have attempted to prove the causalities of spatial phenomenon and explain it based on existent statistical results. Positivist scholars, however, have missed something between causes and effects and have been trapped into the structural foundations (Yeung, 2003). Even the EEG framework has limitations, and has tended to deal with somewhat descriptive empirical studies (Pike *et al.*, 2016), such as the diagnosis and prescription of the decline of local and regional economic crises in a historically processed manner. In addition, while explaining the process of evolution, such works have often not included meticulous explanations of the specific mechanism that appears in the same (Yeung, 2019). This study is not intended to just grasp the causes and effects of spatial change and to describe evolutionary processes of the state developmental model. Rather, it seeks clarify the time-space specific contexts and geographies and their momenta over the evolutionary processes. Thus, it focuses on conjunctural development stories in context (Peck, 2017), rather than paying attention to the outcomes of visible and numerical changes. As a result, it is appropriate for this study to adopt a critical realistic perspective,

Critical realism is a philosophical approach that seeks to understand the social world by exploring the underlying structures and mechanisms that shape it. It was initially proposed by Roy Bhaskar in the 1970s (see Bhaskar, 1975; 1989; 1998), and sought overcome the limitations of positivist methodology after the development of modern science. In the late 20th century, questions pertaining to the suitability as well as scepticism of the positivist methodology emerged, and questions were raised as to whether social phenomena could be sufficiently explained without institutional and contextual backgrounds (Hong, 2007). Critical realism was conceptualised to overcome positivism's deductivism, scientism, and naturalism to reveal the mechanisms and contexts embedded in the depths of social phenomena (Hong, 2011; Yeung, 1997). In economic geography, critical realism has emerged as a main philosophy because of its ontological assumptions and incorporation of elements of realist methodology, though the tendency to use the word 'critical realism' has decreased. After the 2000s, critical realist geographers have begun to concentrate on institutional approaches, relational analysis, and evolutionary concepts of regional economic change (Yeung, 2019).

Economic geographic research calls attention not only to the nexus between the economic and other disciplinary social theories, but also the discursive context in which knowledge of the nexus is created (Yeung, 2003). Economic geography with an evolutionary perspective does not analyse current economic space, but seeks to understand the process and conjunctures that were carried out in the past and continue into the present and the future. Geographically and historically layered economic spaces constitute present geographies, and understanding them requires a comprehension that encompasses time and space across multiple geographical scales. In other words, for the

evolutionary perspective of economic geography, it is required to understand multidisciplinary understanding such as history, social studies, political sciences, and economies that dissolved in time-space. Thus, critical realistic in-depth understanding would be appropriate for this research, as it elaborates on the evolutionary and institutional approach to the states. Additionally, research on state developmentalism faces similar challenges, as interpreting a state's changes simply based on economic indicators has inherent limitations. Particularly without understanding the underlying mechanisms that lead to the emergence of those economic indicators, it becomes difficult to grasp why and how certain outcomes occur. In this regard, rather than merely focusing on numerical changes resulting from neoliberal economic and industrial policies, it aligns more with the direction of the study to comprehend the political and economic mechanisms of state developmentalism underlying those changes and how they interact with neoliberalisation.

Grounded in critical realism, the study applies the EEG perspective blended with the GPE framework to provide a proper framework to carry out critical realist position. Because the GPE approach helps to understand contextual and conjunctural understandings of specific geographical phenomena that would connect not only to evolutionary politico-economic concerns at multiple geographic scales but also to broader questions of the variegation of capitalism (MacKinnon *et al.*, 2009; Pike *et al.*, 2016). The detailed reasons why this study has adopted the GPE are, first, the GPE attempts to provide a holistic approach to identify the causal relations, mechanisms, and processes (Pike *et al.*, 2016). This approach looks at events from a process of changes over time and space rather than static analysis focused on specific points. Specifically, periodisation, one of the techniques of the GPE approach allows industrial and economic environments to be represented from an evolutionary viewpoint. As periodisation tracks and characterises the evolutionary paths (Pike, 2020), it is expected to show the historical and evolutionary institutional situations according to the changes that have occurred in the Korean state developmentalism.

Second, through the GPE framework, it is possible to conduct contextual and conjunctural understandings of specific geographical contexts. The GPE framework aligns with critical realism in that it focuses on mechanisms and processes rather than outcomes. This, in turn, enables identification of a specific mechanism within processes, and analysis of how they have come together in a specific time and space. Geography, or spatial specificity, is understood as the processes and causes created by the interwoven relationships that exist between various actors and politico-economic settings (Sonn and Hsu 2020). Since spatial specificities are difficult to generalise, individual and conjunctural conceptualisations of those matters are required. Understanding the veiled socio-politico-economic contexts and actors at a specific process in the subnational region at a particular

time is also necessary. This approach is able to identify the nature of state developmentalism in line with industrial political transformations.

And third, the GPE framework provides multi-actor and multi-scalar perspectives and methods to address the multiple connections and interdependencies which exist (Pike *et al.*, 2016). Such a multi-scalar approach by the GPE perspective is useful when researching the impact of national level actors or organisations and institutions on the subnational scale, *and vice versa*. This approach is expected to capture strategies, relations, and mechanisms at national and subnational scales. Accordingly, applying the GPE approach to the process of changing the multi-scalar system of institutional settings can assist this study to identify changes in the developmental model under a critical realist position. This process-based, spatially specific, and multi-scalar approach of the GPE facilitates the logical and in-depth analysis proffered within this study.

This practice of the GPE approach is clearly different from the positivist modelling and quantitative data analysis that have been mainly used by neoclassical economic geographers in that quantitative methods are much less concerned with the reflexivity and causality of spatial phenomena, such as the spatial unfolding of national industrial policies and the intensification of path dependent development and lock-in of local and regional economies (Yeung, 2003). A reflection on space by this critical realist approach can explain ‘actually existing’ economic space, this will then be potentially able to explain the incessant evolution of culture, history, society, and institutions in the economic space.

3.3 Research Methodology

As economic geography research has diversified, the demand for corresponding research methodology has also grown. The demand for complex research methodology has led not only to concern about various individual methodology but also concern about the use of multiple methods in one study. In particular, the growth of numerous qualitative research methods, such as intensive case studies, in-depth interviews, ethnographies, participant observation and actor-network theory, have continued beyond positivist methods such as quantitative-statistical techniques (Barnes and Christophers, 2018: 135). These methods may be used independently, but in recent years, several methods have been mixed and used, for example, quantitative-statistical techniques and comparative case studies. The use of multiple methods allows researchers to develop in-depth and fruitful analyses of spatial phenomena. This study uses the extensive-intensive research methods utilised by Sayer and

Morgan (1985). They suggest both extensive and intensive research methods that ask different sorts of questions. The extensive research method is mainly used in quantitative research that seek to identify regularities and patterns. The intensive research method is applied in qualitative research that need to collect in-depth knowledge of a specific phenomenon for the purpose of causal explanation. Sayer and Morgan (1985) argue that each type of research method is valuable, and suggest that the distinction is nothing more than a question of depth versus breadth, which means that potentially the two research methods should be synthesised to enable a holistic understanding of the subject under analysis. The main task of this study is to elaborate on the underlying mechanisms that appear in the course of the evolution of state developmentalism, and it is apposite to highlight changes in economic and industrial policies and their outcomes through the use of extensive methods, whilst also revealing specific mechanisms through the use of intensive methods.

3.3.1 Extensive and intensive research methods used in this dissertation

The extensive research method is mainly concerned with identifying commonality and general patterns as a whole (Sayer and Morgan, 1985). It has become more common in economic geographic research and involves large scale quantitative surveys, such as large-scale formal questionnaires and interview surveys. It normally involves the undertaking of statistical and numerical analysis and produces standardised results. This method provides a first layer of contextual information that then allows for the development of a further probing research agenda. In this study, it is necessary to grasp the general patterns of the industrial and regional development trajectories to figure out state-led industrial and regional development strategies and highlight specific points that give evidence as to the suggested remarkable period of institutional and political changes. This periodisation task allows the EEG analysis to draw the historical evolutionary path of industry and region, and indicate at which points should be paid more attention in the development path. Countries with prominent state intervention in industries such as Korea and Japan have different development trends which are dependent upon the individual state's development goals and policies. This method can show the specific timing of a given state's intervention and the results of the same periodisation. This study identifies the trends of industrial political changes in both Korea's shipbuilding and semiconductor industries to indicate developmental trajectories and point out meaningful institutional turning points. The shipbuilding industrial development is identified by quantified data such as employment and outputs. The primary data to uncovered here includes production, export and employment indicators for both the shipbuilding and semiconductor industries. By examining changes in these indicators, the study reveals how policies have evolved accordingly, and *vice versa*.

The Intensive research method provides an in-depth approach for a small number of cases, and usually uses interactive interview techniques. It asks questions such as ‘How does a process work in particular case areas’ and ‘What did the actors actually do’ (Sayer and Morgan, 1985: 151). This research method explores what the specific mechanisms are, and how does the mechanism impact on phenomenon within the evolutionary process (Yeung, 2019). The method attempts to prove the specificity of the case under examination by uncovering the causal relationships that are hidden behind the case. Thus, it is far from generalisation and universalisation though, this method highlights key causal factors and mechanisms that are key aspects of a critical realist research approach. The results of using the intensive research method tend to be open to interpretation and are qualitative rather than quantitative in terms of data and presentation of results. Utilising the intensive research method, this study focuses on the specific phenomena derived from the state's involvement in the shipbuilding and semiconductor industrial growth (and decline) phases and the complex evolutionary processes of its policy mobilities. To this end, the questions are, as noted in the introduction, addressed by this dissertation; *‘How has the state's role changed during the industrial growth and decline process?’*; *‘What changes have occurred in industrial policy influence following the globalisation of production and business networks?’*; *‘What is the role of local and regional governments in state-led industrial development strategies, and how has it evolved?’*. Through addressing these questions, the dissertation elucidates upon how the legacies of the Korean state developmentalism are sustained within the process of change, and how it is intertwined with, and adapts to changes within the variegated system of capitalism.

3.3.2 A cross-sectoral comparative case study of Korea's shipbuilding and semiconductor industries

The case studies adopted in this dissertation are focused a real-world phenomenon. As noted, it has also been assumed that the industries studied and the country in which they are sited both have their own changing interconnections within variegated capitalism, and assumes that such an understanding is likely to be highly involved in contextual conditions of the case area of Korea. Since the cases are affected by various unforeseen variables, there is a need for multiple sources of evidence and data to be collated and studied. Furthermore, a comparative case study comparing two or more cases is more likely to useful when it comes to supporting the justification and representativeness of the case studies chosen (Flyvbjerg, 2006; McMichael, 1990).

Comparing two different sectors enables illustration of the dynamic evolution of the Korean developmental state, and the case study was conducted in two ways. First, attention is paid to the commonalities and differences between the two case sectors, which is a basic form of comparative

study that can justify both the universality and specificity of the cases. Second, the comparative case study conducts a comparison that is traced across (geographical) sites and scales in keeping with the approach advanced by Bartlett and Vavrus (2017). This enabled the study to track how the cases changed over, and this would, in turn, fit well to answer the research questions of this study.

The reason for conducting the comparative case study on the two different sectors is that a single case may not sufficiently reveal the dynamics of the evolution of state developmentalism. For instance, it may be noted that with regard to the shipbuilding industry, Korea still preserves some dominant characteristics of a typical developmental state which could overshadow the dynamism of the evolution of the Korean developmental state. This could, in turn, perpetuate a binary logic of the death and life of state developmentalism in keeping with that which appears within extant literature. A key feature of this case study is that the real world of the developmental state is influenced by multiple variables, such as neoliberalisation and developmental mindset, and through a contextual understanding of these factors, this study is able to identify dynamics of the evolutionary process of Korean state developmentalism. More importantly, the case study involves a multi-scalar approach to the state, industries and local and regions. The developmental state conceptualised economic and industrial policies without considering various geographical scales. For example, while the Korean utilised uneven spatial strategies, local and regions were marginalised, and individual industrial policies at the subnational level were overlooked to date. Furthermore, due to the predominant focus on identifying common elements that represent the developmental state including industrial policy and institutional perspective, detailed and nuanced discussions on sectoral and regional differences are lacking. In this regard, this case study considers comparing two different sectors and regions to reveal individual features of industries and local and regions that co-evolve within the state's policy involvement.

The specific way in which this thesis compared the two sectors is as follows. First, the selection of case sectors is crucial. The shipbuilding industry, a representative national state-led industry of the developmental state, is chosen as the first case to illustrate how Korean state developmentalism has been sustained and why it is inevitably continued. Thereafter, the semiconductor industry is selected as the comparative sector because this industry possesses both developmentalist elements as a national strategic industry and post-developmental elements in which corporate actors play a more significant role beyond the state actor. The two sectors are worth a comparative analysis as they demonstrate how national level industrial policies and institutions can be flexibly adjusted across different sectors, particularly given their status as strategic industries for the state. In relation to this case selection, the specific criteria for selecting the shipbuilding and semiconductor industries in this

study are as follows:

1. Was/Is the role of state actors important in the selected industries' development?
2. Do the selected industries exist as major export industries in both the developmental period and the so-called post-developmental era?
3. Can significant non-state actors be identified in the selected industries, and can their roles be explained?
4. Were/Are the selected industries concentrated and embedded in specific regions, forming regional industrial policies?
5. Can the researcher gather sufficient data on the selected industries so as to enable the dissertation's research questions to be answered?

Based on these criteria, the study conducts the cross-sectoral comparative case study of the Korean shipbuilding and semiconductor industries, specifically following the flow outlined in Figure 3.1. It reveals the changes and differences in national level policies, production methods at industrial level and local level practices during the developmental and post-developmental period. Thereafter, the study compared the case industries to address what developmental legacies emerged within these changes, and why issue of legacies appeared differently across them. Then the study elaborates on how the impact on a global scale dynamically unfolds in post-developmental industrial and regional development policies and how this should be viewed to understand the Korean post-developmental state. Ultimately, the comparative study aims demonstrate that state developmentalism undergoes dynamic evolutionary process through the interplay of its internal operational systems and the impact at a global scale. This evolution manifests differently across industries rather than uniformly at the national state level. In the end, post-developmentalism cannot be defined by a specific concept but can be understood as a phenomenon that changes its form through the combination of various geographical and historical contexts and conjunctures.

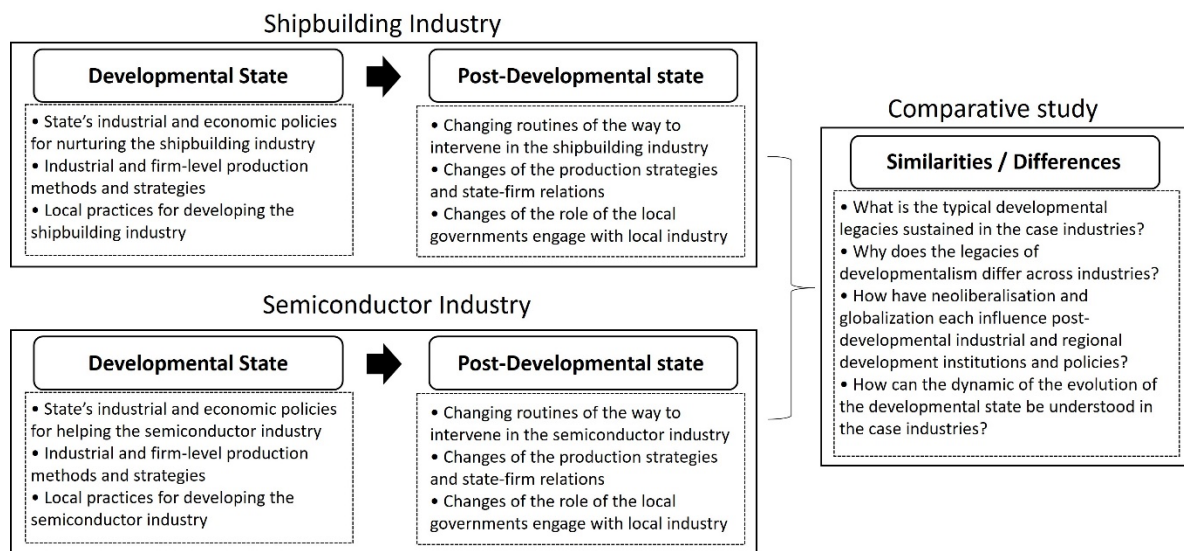


Figure 3.1 A cross-sectoral comparative study on the shipbuilding and semiconductor industries in Korea
Source: Author's own.

3.4 Research methods strategies

The study primarily employs qualitative research methods and conducts a cross-sectoral case study. Here are the specific research methods strategies for data collection and analysis, which encompass key approaches utilised extensively throughout the research process from beginning to end.

3.4.1 Data collection techniques

This study uses both primary and secondary data in its analysis of the shipbuilding and semiconductor industries and their performances and impacts on regional economies. Secondary data includes source such as statistical data and policy data, and these are used to quantify and describe industrial and regional policies. Primary data is used to illustrate more in-depth and conjunctural relations that could not be confirmed via use of secondary data. For the primary and secondary data collection, three data collection techniques are used in this work: Quantitative data collection and organisation, Archival research, and Fieldwork.

Quantitative data are used to address the development trajectory of the shipbuilding and semiconductor industries. The main data sources utilised are production and export data provided by research institutes, and individual companies and organisations. With regard to the shipbuilding industry, macro-economic data is also required, because the industry enormously influenced by global economic circumstances. Sources used include the National Statistic Services from each country, the Local government statistic system, the Shipbuilding Industry White Paper, the Shipbuilding Industry

Statistic Yearbook, working papers and research documents by supra-national organisations and private organisations, such as OECD's Working Party on Shipbuilding (WP6), Clarksons Research, and Lloyd's Register. With regards to the data for the semiconductor industry, data on production and export data is primarily sourced from Statistics Korea (KOSIS), the Korea International Trade Association (K-stat), working papers and reports by research institutes such as the Korean Institute for Industrial Economics & Trade (KIET). Additionally, the global semiconductor industry trade is tracked using UN Comtrade databases to explain changes in the networks of the global electronics industry.

Archival research is needed to capture and further analyse past policies and industrial changes as well as the overall development paths of the shipbuilding and semiconductor industries. Since both shipbuilding and semiconductor industries in Korea are considered to be national strategic industries (this will address in Chapter 4 and 5), they are highly linked to national level industrial strategies and institutions. As a result, there are numerous datasets related to the industries that can be collected from various policy archives, such as National Development Plans, Regional Development Plans and the governments and institutes Reports. In addition to this, media data is an important archival material because it contains not only information from major issues to small affairs but also its evaluations of regimes. In addition, using local media data helps in the identification of major local actors and reveals their relations with central governments. In the archival sources in Korea, much of the data can be on websites and without time-space restrictions, and thus consultation of the same did not require extra data collection time from the researcher.

Last but not least, fieldwork is the source that generates the most relevant and up-to-date data for this research. The main purpose of the fieldwork undertaken for this study is to collect both quantitative and qualitative data not found in archives, and to double-check the information collected from the archives through semi-structured interviews. For this research, fieldwork is conducted over a six-month period. The first round of field surveys take place between March and June 2022, while supplementary fieldwork is conducted from September to October 2022. The main research fields include four local areas in Korea, including the shipbuilding industrial cities of Geoje and Ulsan, as well as the semiconductor industrial cities of Suwon and Yongin (Figure 3.2). The fieldwork primarily consists of conducting semi-structured interviews with various actors; 19 interviews with 25 individuals (Table 3.1). The interviewees are broadly categorised into three groups: research groups, government actors and local and industrial actors. The reason for dividing the interviewees into three groups is to understand common and divergent perspectives on the same central government policies and how they are perceived. First, the interviews were conducted with research bodies such as regional research institutions and universities focusing on the shipbuilding and semiconductor

industries. The purpose of interviewing the research group was to understand policy governance. Since much of their research is commissioned by the national or regional governments, their work provides insights into the intentions and objectives that central and regional governments have regarding these industries, as well as the actual economic impacts on the nation and region. This was considered an opportunity to comprehensively gather data on industrial policy governance and its economic outcomes. In fact, the interviews with the research organisations revealed findings regarding governance structure, the relationships between central and local governments and economic outcomes that closely aligned with my initial expectations. Based on this interview data, I prepared the interviews with local and regional governments, and industrial representatives. Second, interviews with government actors were conducted to understand how industrial and regional policies determined at central level are actually implemented at the local and regional level. These interviews primarily focused on local governments and provided raw, unprocessed data. Most importantly, the core of the interviews was to interrogate how local and regional governments interpret and adopt central government policies for implementation in their regions. The findings are intended to be used to demonstrate the gap between the concept and actual practices. Third, interviews with localities and industry actors were conducted to examine their marginalised roles in the formulation and implementation of industrial and regional development policies, as well as to gather information on undisclosed internal corporate practices and data. The key findings reveal that while localities were marginalised from the growth process of these two industries, they are deeply embedded in the regional industries. Additionally, significant primary data was obtained regarding domestic transaction practices within these industries. Depending on the interviewee groups, the questions are varied, and the detailed interview questions can be found in Appendix.

The data collected through these methods enables this study to identify causality and key mechanisms as outlined in the critical realist approach. The changes in state, corporate and local and regional performances in response to institutional and policy movements in the developmental state can be represented by quantitative indicators. This study, however, analyses the underlying mechanisms of these changes, and focuses on how transformations at various geographical scales collectively shape post-developmentalism as well as examining the dynamic evolutionary processes that emerge in this context. Given this, interview data collected through fieldwork is particularly important, as it reveals how changes in industrial policies and corporate strategies are perceived and unfold at both national and subnational levels. Analysing this data enables the study to capture dynamic aspects of state developmentalism -from the developmental mindset to production methods encompassing both cognitive and functional aspects; crucial for identifying key mechanisms.

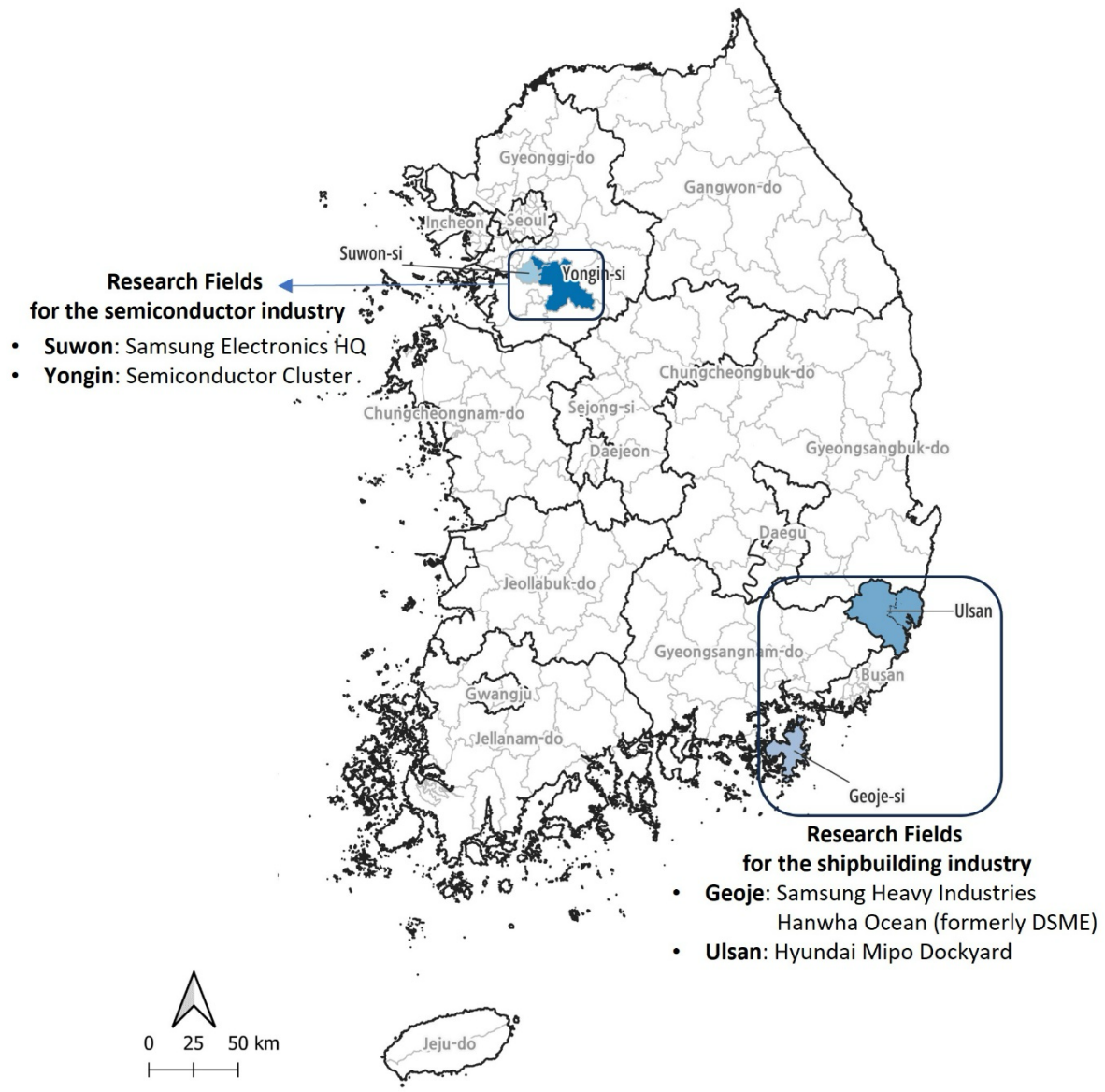


Figure 3.2 A map of research field

Source: Author's illustration.

The shipbuilding industrial areas: As of 2022, the southeastern region of Korea, including Geoje and Ulsan, serves as a prime example of the shipbuilding industry in Korea. The region accounts for approximately 79.3% of the total shipbuilding production in Korea.

- **Geoje:** Two of the top three shipyards in Korea, Samsung Heavy Industries, Hanwha Ocean (formerly DSME), are located in Geoje.
- **Ulsan:** Known as the 'Hyundai Republic', a home to Hyundai Motors as well as HD Hyundai Heavy Industries, Hyundai Mipo Dockyard and Sejin Heavy Industries.

The semiconductor industrial areas: As of 2021, the metropolitan region of Korea, including Suwon and Yongin, serves as a prime example of the semiconductor industry in Korea. The region accounts for approximately 80.7% of the total semiconductor production in Korea.

- **Suwon:** Samsung Electronics headquarter is located and serves as the hub of the semiconductor industry in Korea, with other semiconductor factories in nearby areas such as Hwaseong and Pyeongtaek.
- **Yongin:** An area adjacent to Suwon where the semiconductor industrial cluster is under construction, led by SK Hynix. A number of semiconductor-related institutions and SMEs are expected to be located in Yongin.

Table 3.1 List of Interviews

Interview groups	Interviewees and Interviewees' affiliation	Field of Work/Research	Date of Interview	
1	Research Groups	A professor at a university near the shipbuilding industrial area	Regional Industrial Policy	19.04.2022
2		A professor at a university near the semiconductor industrial area	Regional Industrial Policy Science and Technology Policy	31.05.2022
3		A researcher at the Gyeongnam Institute	Local Economies Industrial Diversity	27.04.2022
4		A researcher at the Suwon Research Institute	Local and Regional Development	30.09.2022
5		Researchers at the Korea Offshore & Shipbuilding Association (KOSHIPA)	Shipbuilding Industry Policy	20.05.2022
6	Government Actors	Local government officials at Geoje City council	Local Shipbuilding Industry Employment Policy	20.04.2022
7		A researcher at the Gyeongnam Investment & Business Agency	Public Investment in Industrial Recession Regions	27.04.2022
8		A researcher at a State-run corporation	Industrial and Energy Strategy at an Industrial Cluster	17.05.2022
9		Local government officials at Yongin City council	Semiconductor Cluster Development	11.10.2022
10		Local government officials Ulsan Dong-gu council	Shipbuilding Industrial Decline and Support Policy	20.05.2022
11	Localities and industrial actors	Local real estate investors in Geoje	Local Real Estate Development	22.04.2022
12		A practitioner at a major shipbuilding company	Shipyard Corporate Strategy	28.04.2022
13		A practitioner at a major shipbuilding company	Shipbuilding Vessel Design	30.04.2022
14		A practitioner at a major shipbuilding company	Shipyard Subcontractor Management	26.04.2022
15		A businessperson running a SME near the semiconductor cluster	Semiconductor Component Supply	12.10.2022
16		A former practitioner at a major shipbuilding company	Worked at International Procurement	13.10.2022
17		A practitioner at a major semiconductor company	Working at Memory Chips Business Division	05.10.2022
18		A practitioner at a major semiconductor company	Working at Non-Memory Chips Business Division	13.12.2022 (Online)
19		A practitioner at a major electronics company	Working at a European overseas branch	20.01.2023 (Online)

* Interviewees and their affiliations are anonymised if they can be identified based on their field of works

3.4.2 Data analysis strategies

The data collected for this study is analysed in two main ways:

1. Changes in industries and regional economies are described alongside identification of key evolutionary points to pinpoint processes of the evolution.
2. Policy changes related to these points are elaborate upon strategic changes at the national, subnational and firm levels during the process of the changes are analysed to indicate the causalities and mechanisms of the evolution of developmentalism as well as the emergence of post-developmentalism.

These analyses provide insights into the dynamics of industrial and regional economic transformations and the corresponding strategic adaptations at various geographic levels.

The first task involves describing the changes in the shipbuilding and semiconductor industries, as well as their respective regions, using quantified data. Given the GPE perspective, periodisation is conducted for the period from the 1960s to the early 2020s. This is achieved by aligning data in parallel and identifying major turning and evolution points using economic indicators such as industrial production, export volume, and regional output. Given that state developmentalism seeks to achieve state development through maximising exports, these data act as a crucial indicator not only of their growth but also the effectiveness of the developmental state's strategies and policies. The major shifts in those indicators are, as is noted, closely intertwined with national economic and industrial strategic changes, and often lead to the formulation of new development strategies coupled with global impacts.

Thereafter, policy changes at the major turning points identified through the periodisation is analysed. Periodisation, a preliminary step before in-depth analysis, does not itself reveal the underlying mechanisms and causalities, but highlights key points of the evolution. As noted, pivotal points arise from various causes, such as global impacts, the political economic growth of the state, and the growth and decline of industries. Under these influences, this study examines how policy changes in the shipbuilding and semiconductor industries have occurred or failed to occur, and analyses their causes through the institutional evolution of state developmentalism. This analytical strategy includes three different scalar approaches. First, at the national state level, it explains the direction of the Korean post-developmental state through changes in macroeconomic strategies in response to global impacts and the subsequent modification of industrial strategies. Second, it analyses the coexistence of neoliberal corporate strategies and the legacy of state developmentalism

through changes in corporate production strategies following shifts in national industrial strategies. Finally, through the transformation of the role of local and regional governments within these changes, the study analyses the relations between the central and local governments. This analysis strategy enables comment to be proffered on institutional path dependency and novelty in the evolutionary process of state developmentalism and to utilise the same as evidence by which explain the Korean post-developmental state.

3.5 Ethical considerations and the researcher's positionality

The study began in October 2020 and was completed in 2024. Throughout this period, COVID-19 issues and changes in a political landscape in Korea have intersected with the research topic and ethical considerations. Taking these factors into account, the selection of interviewees and the research approach were consistently updated. Efforts were also made to minimise changes in the researcher's positionality over the four years period of study.

3.5.1 Ethical Considerations

The research is methodologically considered to be low-risk and received ethical approval from the Research, Policy, Intelligence and Ethics Team at Newcastle University in December 2020 (Ref:8355/2020). The reason for this low-risk decision is that the research topic itself does not involve judgment on politics, religion, race, ethnicity, gender etc., and the methodology does not employ approaches that required consideration of such factors.

The focus of this research is on state development models, and while domestic and international politics could have an impact on the state's development policies, evaluations and judgements regarding them are irrelevant to this work. Additionally, the research methodology involves fieldwork and face-to-face interviews. The fieldwork areas include subnational regions in Korea such as Geoje, Ulsan, Suwon and Yongin -which are associated with the shipbuilding and semiconductor industries. No areas with restricted access are included in the fieldwork. Face-to-face interviewees involve the researcher, industry practitioners, and government officials, and questions primarily focus on industrial and regional development policies (see the appendix for reference). Audio recordings of interviews were collected only with prior consent, and recording devices were placed on the desk with the individual interviewee's permission. Documentation of the recording files was carried out with consent, and the recorded files and the transcription files were shared with the interviewees. As planned policy details and corporate strategies are included in the content of

interviews, interviewees and their affiliations are anonymised.

3.5.2 Researcher's positionality

The researcher's positionalities are characterised as follows: South Korean, male, and a student studying in the UK. These three positionalities had a notable impact on the selection of cases and fieldworks.

Being Korean facilitated an easy understanding of state-led industrialisation and enabled relatively quick identification of relevant cases. Korea's trade balances, particularly its significant exports dominated by semiconductor and shipbuilding industries, are extensively covered in the media as breaking news every month, making it easier to identify suitable cases. If the manufacturing sector's exports and imports had not been as extensively covered in the national context, then the selection of cases might have been different. Being Korean was not always advantageous. Before conducting the cross-sectoral comparative study on the Korean shipbuilding and semiconductor industries, the research initially planned a cross-national comparative study on the shipbuilding industry between Korea and Japan. However, during the preliminary data collection before fieldwork in Japan, the researcher realised that the decline of the Japanese shipbuilding industry was closely related to Korea, making it difficult to conduct interviews in Japan. Moreover, the researcher came to the realisation that the subject matter itself is not something that Korean research could easily uncover through interviews in Japan.

The position of being male and studying in the UK significantly influenced the data collection process. For instance, the shipbuilding industry is predominantly male dominated, with most workers and interviewees being men. Being male during the process of recruiting and conducting interviews potentially made male respondents more comfortable in terms of sharing their stories (there were instances of some aggressive and sexually explicit expressions). Moreover, staying in masculinised cities where shipbuilding workers predominantly reside for more than two months allowed for relatively less concern about issues pertaining to safety. In addition to this, the position of being a student from the UK is also advantageous when reaching out to experts and government officials for interviews. Whenever the researcher requested interviews, he was often asked, "Why do you, being from the UK, have an interest in us?" This implies that the researcher's position is deemed to be intriguing to them. Thanks to the researcher's position as a student from the UK, the success rate of interview recruitment was satisfactory, and the interviews were conducted in a bidirectional manner whereby interviewees also asked the researcher about his research and life in the UK, leading to extensive conversations.

3.6 Conclusions

Understanding the transformation of the developmental state through an approach that blended the EEG with the GPE perspective offers significant insights to this study. The approach involves not merely questioning the changes in state developmentalism, but also understanding post-developmentalism through the underlying institutional characteristics and the politico-economic dynamics that build upon them. To this end, this study elaborates on the evolution of the Korean (post)-developmental state from the ontological and epistemological perspective of critical realism. While the developmental state was conceptualised by common traits based on its outcomes of industrialisation and economic development in East Asian countries, the transformations of state developmentalism have manifested in variegated forms according to the geographical and historical contexts of individual countries, making it difficult to generalise and conceptualise. Hence, instead of referring to post-developmentalism as a mid-range theory or concept, the study narrows its scope to the Korean post-developmentalism and seeks to understand it within a specific geographical context.

To this end, this study conducts a cross-sectoral comparative study of the Korean shipbuilding and semiconductor industries. The developmental state prioritises national economic development interests with their industrial and regional policies. These policies have eventually been transformed due to various factors, such as neoliberalisation and globalisation, leaving them vacillating between the developmental state and a neoliberal state. In analysing these changes, the study adopts an approach that blended the EEG perspective with the GPE framework, and conducts both longitudinal and cross-sectoral studies on the case industries. The selection of the cases of the shipbuilding and semiconductor industries is justified in distinct ways, and it is noticeable that they have similarities in terms of national strategic industries. Specifically, while the shipbuilding industry was nurtured as a typical strategy of the developmental state, the semiconductor industry emphasises the role of the private sector. Ultimately both industries are managed by the central government as national strategic industries that produce major export items, accompanied by various exceptional benefits from the state. At the same time, both industries are deeply intertwined with the subnational governments at local and regional levels, and the practices of the subnational government appear differently. While the shipbuilding industrial areas still maintain a close link to the central government, the semiconductor industrial areas emphasise the role of the local governments more. This reflects how the industrial strategies of the developmental state can evolve in diverse directions -to some extent the underlying state characteristics are sustained fairly strongly while also showing aspects of post-developmentalism. This implies that understanding the change cannot be understood solely on the

national level policies or economic indicators, rather, it necessitates considering the underlying political economic contextual shift as well. To enable sustained comment upon this, this study employs two main method strategies. First, it identifies key points of change through policy documents and statistical data to grasp on overall idea of the general direction shift of the industrial policies (Chapters 4 and 5). Secondly, it gathers empirical evidence of the (un)changes through fieldworks, collecting first-hand data obtained from semi-structured interviews with various actors at the national state, industrial and local levels (Chapters 6,7 and 8). Supported by both secondary and primary, quantitative and qualitative data, the study argues that Korean post-developmentalism is not simply a transition of the developmental state into neoliberalised way but rather a continuously evolving phenomenon that has emerged in conjunction with Korea's unique geographical contexts and that it is, therefore, a particular kind of the variegated system of capitalism that is constantly evolving.

Chapter 4. Korean developmental strategic industrialisation, key actors, and the global settings

4.1 Introduction

“The first five-year economic development plan, which mobilised all its powers, laid the foundation for (economic) independence and prosperity in this country from (economic) dependence and poverty. We filled the sea to make rice paddies and cut mountains to make fields. And the humble village is turning into an industrial area with factories. Thus, most of the major supplies such as food, fertiliser, cement, oil, and electricity could be self-sufficient. In addition, Korea exported industrial products to more than a hundred countries around the world, and Korea’s exports amounted to 250 million dollars. Today, many foreigners say that a miracle is happening in Korea.....”

(New Year’s Speech by Park Chung-hee, the President of Korea in 1967; Author’s translation)

From the 1960s onwards, Korea began to grow rapidly. Even amidst the global economic downturn of the 1970s, Korea continued to develop. The rapid growth of Korea during the mid-late 20th century was explained by the government’s strategic involvement in industrial and regional development policies. The Korean government implemented state-led industrial and regional development policies in order to enable food self-sufficiency and industrial development. The active involvement was successful in the 1970s, with an annual GDP growth rate of around 9%, and full food sufficiency surpassed 70%; significantly enhancing the living standards of the people and enabling Korea to become one of the Four Asian Tigers (Jang, 2020). This fast transformation generated the interest of many East Asian studies. Korea’s industrialisation began with light industries centred on consumer goods, whilst the heavy and chemical industries developed as demand for intermediate and capital goods gradually increased. The heavy and chemical industries were crucial for the country’s rapid industrialisation and national economic growth; the industries led inter-sectoral co-development and created lots of well-paid jobs. However, as the heavy and chemical industries require large-scale facilities, technology, manpower and industrial capital, the initial entry barrier was much higher than it would have been in other sectors, and it was, therefore, difficult to foster the industries without government support. The problem here was that at this juncture the Korean government lacked the capacity to nurture the industries. Given the lack of a resources to achieve industrialisation, the government adopted an approach whereby it developed strategic industrialisation and selective local

and regional development.

The strategic industrialisation policy has enabled successful industrial transformation and development by providing various incentives and regulatory measures. The state selectively gave companies subsidies and institutional incentives, while forcing them to generate export volumes and revenue. This strategic industrialisation corresponds with Wade (1990) and Amsden (1989)'s arguments (discussed in Chapter 2). Wade (1990) indicates that East Asia's rapid economic growth and industrialisation were attributed to investment in certain strategic industries, and notes how this led to rapid results with developing international competitiveness. In addition to this, Amsden (1989) argues that the main goal of the developmental state was rapid growth, and that strategic industrialisation policies were the key to making this possible. As such, the industrialisation of Korea was achieved through a government-led strategic industrialisation programme, rather than merely through government interventions. In addition, the strategic industrialisation policy was not the central government's decision-making *per se*, but rather a series of collective practices that were jointly achieved by various actors, whilst the complex external situations that surrounded East Asia should not be ignored when it comes to explaining the process of industrial policies.

This chapter addresses the overall context of both Korean strategic industrialisation and selective regional development policies. It elaborates on the contexts in which Korea was able to realise fast industrialisation and economic growth and comments on the roles of various actors at multiple geographic scales. This contextualisation of Korean economic growth and industrialisation provides hints of the mechanisms that underpinned the changes in the state developmental model, and corresponds with the critical realist method strategy of this study. The chapter includes five subsections, after this introduction section. Section 4.2 explains strategic industrialisation in Korea, and focuses on the historical description of industrialisation strategies and programmes. Section 4.3 elaborates on the major players of the strategic industrialisation and the selective regional development programme. Though the programme was government-led, it explains who the main actors were and how they were able to address strategic industrialisation. Section 4.4 focuses on the external settings of strategic industrialisation, and addresses issues pertaining to the Cold War during the developmental period and the New Cold in the post-developmental era. Finally, section 4.5 presents a summary and conclusion.

4.2 Strategic industrialisation, regional development and its changes

Korean economic growth and changes to its the industrial structure were led by manufacturing

industries. While light industries were developed to substitute imported goods, heavy and chemical industries were developed to increase exports. In contrast to advanced western nations, such as the UK, the US and Japan, Korea experienced industrialisation over a very much shorter period, thanks to the government's strategic industrialisation programme. In order to efficiently utilise limited resources, the government implemented strategic industrialisation and selective spatial strategies.

4.2.1 From Import Substitution to Export-Oriented Industrialisation

Due to the Korean War in the early 1950s, Korea's economy suffered severe damage, and the destruction of industrial facilities and infrastructures made it impossible to achieve 'self-sufficiency'. Korea needed huge resources for post-war recovery, and the only way to get resources was through foreign aid. With limited capital and resources for economic and industrial development, Korea chose an import substitution industrialisation (ISI) strategy (KDI, 2016). The ISI strategy was chosen because there was domestic demand for essential goods, production facilities could be constructed using overseas aid, and the approach would also facilitate the aim of lowering the proportion of imports.

In order to embed the ISI strategy, the Korean government implemented import restrictions and tariff rate adjustments, foreign exchange controls and financial support policies. The Ministry of Commerce and Industry (MCI) announced a semi-annual trade plan in which imported articles were categorised items into approved, restricted, and banned items. Items that could be produced domestically and were capable of meeting demand were designated as banned items and items that could be produced domestically but did not meet demand were designated as restricted items which would require approval from related ministries to be imported (Museum of Korean History, 2014). Concurrently, the Korean government imposed different tariff rates depending on the domestic availability of certain goods. For example, the average tariff rate in the mid-1950s was about 40%. Table 4.1 shows that tariff rates varied depending on the product, for instance, non-domestic production facilities and raw materials were tariff-free, a 20% tariff was imposed for unfinished goods produced in Korea, a 30% tariff was added for finished goods produced in Korea, and 50~100% was added for (quasi-) luxury items. Thereafter, through the Customs Act of 1957, the tariff rates on goods that could be produced in Korea were further increased, resulting in an average tariff rate of about 45%. These import restrictions were a significant step toward developing Korea's import substitution industries. This import substitution strategy was possible within a variegated capitalist system that was itself undergoing industrial structural changes and within which the functional integration of production was not prevalent.

Table 4.1 Import tariff rates in the 1950s

Products	Tariff rates
Non-domestic production facilities and raw materials	Tariff-free
Necessities and Unfinished goods (domestic production is less than demand)	10%
Unfinished goods produced in Korea	20%
Finished goods not produced in Korea	30%
Finished goods produced in Korea	40%
Quasi-luxury goods	50-90%
Luxury goods	100%

Source: Author's compilation from the Museum of Korean History (2014), p.58.

In addition, foreign exchange and finance were centrally managed in the 1950s. The Bank of Korea was the only financial institute that managed the entire country's foreign exchange. All private foreign currencies had to be deposited with the BOK. As a result, most imports were made by the central government, and imported items, such as raw materials and capital goods, were distributed to the private sector (Park *et al.*, 2014). Furthermore, foreign currency held by the central government was allocated for general imports by private sector, which allowed the latter to import specific goods and facilities that could not be produced domestically. In addition to foreign exchange controls, financial controls were also implemented. The central government limited bank interest rates up to 20% per annum and loans for the acquisition of aid materials were much lower than general lending rates. With regard to industrial financing, the Korean Development Bank (KDB) was predominantly in charge of industrial finance. The textile and fertiliser industries accounted for the largest portion of loans made by the KDB, and loans for import substitution also accounted for a large portion (Lee, 2016). Through such mechanisms, the government tried to cultivate country's industrial foundation by protecting and nurturing domestic industries. In particular, the centralisation of the finance and banking system provided the government with control capabilities, laying the foundation for the rise of state developmentalism.

By the early 1960s, the ISI strategy, however, was in crisis because of cuts in aid and the foreign capital procurement method changed from free aid to loans. In addition, industrial protection through tariff rates and financial controls could not efficiently lead to industrial productivity and technology advancement. A new strategy was needed to both adapt to the changed external settings and respond to the limits of the ISI strategy. In 1962, the Park Chung-hee leadership announced the first five-year economic development plan. It set economic growth targets and established the role of each sector with regard to achieving those targets. As per the plan, foreign loans became a major source of

industrial capital instead of aid and acquiring foreign currency to repay them became important. As a direct result, it was necessary to increase exports. The government revised its industrialisation strategy from the ISI to export-oriented industrialisation (EOI) while implementing various policies to encourage exports. For instance, labour-intensive light industries were nurtured as export industries, and benefits from finance and taxes were provided to reduce production costs and increase export competitiveness. The import and export link system that exporters were able to use the full amount of export revenues for importing intermediary goods was implemented, thereby promoting processing trade (Park *et al*, 2014). In addition, in 1965, exchange rate reform was implemented by the central government. The BOK converted the existing fixed exchange rate system. Through implementing the same, the BOK depreciated the KRW's value to USD from the basic exchange rate of 130:1 to 270:1. As a result, imports were greatly suppressed and exports increased significantly.

Unlike more recent spatial strategies (discuss in Chapters 6, 7 and 8), the central government spatial strategies were not evident in the 1960s. The majority of the light industries were clustered near major cities, such as Seoul, Busan and Daegu in order to facilitate labour supply, and the clustering was more a result of companies' autonomous decisions rather than policy directives. Following the initiation of EOI in the mid-1960s, areas that were densely populated with light industries were spatially institutionalised into national industrial complexes, and financial and tax incentives were offered to export companies located within the industrial complexes (Baek, 2002). Given this, it is difficult to consider the ISI period as fully representative of Korea as the developmental state, because the Korean state focused more on how to distribute (foreign aid) resources rather than actively pursuing industrial and spatial strategies due to its lack of economic capability.

4.2.2 Selective industrialisation strategy and heavy and chemical industrialisation

The shift from the ISI to the EOI in the early 1960s set up a strategy that nurtured selective industries that were focused upon exports. From the late 1960s, acts to promote targeted industries were enacted. For example, acts on textile, machinery, and electronics industries were enacted in the late 1960s, with acts on steel, petrochemical and nonferrous metal industries following in the early 1970s. The selection of individual industries was made by estimating the domestic demand of each industry and the volume of product supply needed to meet domestic demand and then institutionalising those industries that needed to be expanded (Park *et al*, 2014). The institutionally selected industries benefited from central government policies, such as tariff reductions when importing capital goods and corporate tax reductions when investing in production facilities. The Korean government focused on industries such as the heavy and chemical industries that would also deliver 'trickle down' benefits.

The selective industrialisation strategy based on the unbalanced growth approach led to policies that nurtured heavy and chemical industrialisation in the 1970s.

Full-scale strategic industrialisation in Korea emerged in the 1970s through the heavy and chemical industrialisation programme.² The heavy and chemical industrialisation that occurred in 1973 can be seen as a pivotal turning and starting point for the strategic industrialisation of Korea because it was an industry-centred programme led by technocrats; a key aspect of the developmental state highlighted in Chapter 2, and an aspect that is less evident in the two case studies today (for further see, Chapters 6, 7 and 8). Though the previous industrial strategies shared a few similar features with the later plans, they were carried out as a part of the five-year economic development plans at the national scale. In other words, the old strategies were not full-scale industrialisation plans, but rather, they were considered as economic development plans. Heavy and chemical industrialisation was, however, an industrial promotion plan aimed at the development of selected and targeted industries at both industrial and national scales. This, in turn, implies the initiation of strategic industrialisation; a key characteristic of the Korean developmental state, and the differences between industrial policies implemented under the economic development plans and industrial promotion plans are shown in Table 4.2.

The industrial policies under the economic development plans put the economy first. The main actors were economic elites, and there was a change in strategy in terms of national level imports and exports, and growth and security; these were the main rationale for the policies. At the same time, industrial development plans were promoted by groups of technocrats centred on the President's Office (the Blue House, aka *Cheong Wa Dae*). The president and officials within the President's Office tried to develop heavy and chemical industries by focusing on export-led industrial development strategies so that the Korean state was able to catch-up with early industrialised countries. The differences between the two plans became apparent through the heavy and chemical industrialisation programme and, as a result, 1973 was not only one of the major turning points in Korean industrial development paths, but also the start of path creation and consolidation in industrial regions.

² Heavy and chemical industrialisation was not the first full-scale strategic industrialisation programme because there had been a similar programme initiated in 1970; the Four Core Factory Construction Plan. The plan was to establish four core industrial infrastructures: Cast iron, Special steel, Heavy machinery, and Shipyard to foster heavy industries. Initially, it was planned to develop the defence industry because of the provocations of North Korea and the Nixon Doctrine in 1969. The plan was carried out by Dr. Harry Choi at the Battelle Memorial Institute in the US, and he reported on the potential results of constructing heavy industrial facilities in Korea. The Ministry of Commerce and Industry and the Economic Planning Board in Korea reported Dr. Choi's plan to the Office of the President in 1970 and the central government implemented the four major industrial facilities construction plans (National Archive of Korea, <https://www.archives.go.kr>).

Table 4.2 Different policy focus between the economic development plans and industrial promotion plans

	Economic Development Plans	Industrial Promotion Plans
Major actors	Office of the President Economic Planning Board led by economic officials	Office of the President Heavy and chemical industrialisation committee led by technocrats
Main goals	Import substitution and Export-oriented industrial development National economic development	Export-oriented industrial development Industrial development
Policy rationale	National economic growth Long-term advancement of national industrial structure Check on North Korea and nurturing the defence industries	Follow the Japanese industrial policies Improvement of trade balance through produce intermediate and capital goods Inter-sectoral networks and co-development
Examples	Five-year economic development plans The Four Core Factory Construction Plan	Heavy and chemical industrialisation plan Six strategic industrial development measure under the Heavy and chemical industrialisation programme

Source: Author's own

As a part of the industrial promotion plans, heavy and chemical industrial development policies were officially institutionalised and launched in 1973 with the heavy and chemical industry promotion committee being under office of the president. In order to nurture heavy and chemical industries, the government promoted private investment with financial support. For instance, the government invested about KRW 2.98 trillion in fostering heavy and chemical industries and provided low-interest loans from state funds and the KDB. The state's financial capabilities were concentrated on this programme with about 80% of the KDB's manufacturing loans being directed to the heavy and chemical industries in the 1970s. In addition to this, tax cuts were also made with national taxes reduced by 100% for the first three years and 50% for the next two years only for major heavy and chemical sectors, and tariffs reduced by 70~100% (Park, 2016). Furthermore, the tariff was reduced for those imported industrial materials that were for the heavy and chemical industries, whilst corporate taxes were reduced when investing in facilities, and income tax on exports was reduced by 50% (KDI, 2011). As a result of this intensive government investment and support, the heavy and chemical sectors grew at an average annual rate of 20% in the 1970s and achieved the goal of exports worth USD 10 billion in 1977 (Choi, 2015). Thanks to the programme, Korea's industrial and export structure became similar to that of the advanced economies. Korean industry shifted from a processing trade industry to a self-reliant industrial structure, and the international division of labour resembled that of Japanese and US firms; it shifted from a relationship of one-sided dependence to a model of mutual dependence. Through this strategy, Korea's industrial structure also became highly dependent on external economies. This dependency persists to date, making the country highly sensitive to export and import indicators when it comes to key commodities.

The heavy and chemical industrialisation programme also delivered side effects that partially contributed to a destabilising developmental state and the financial crisis of the 1990s. First, the exceptional tax benefits and financial support for the targeted industries brought about the problem of distortion with regards to resource allocation. In order to provide financial and tax support for heavy and chemical industries, other industries had no choice but to fill the shortfalls. In particular, the tax rates on light industries increased, and the credit concentration within the heavy and chemical sectors led to credit depletion for light industries. Furthermore, the excessive investment caused encroachment on the capital resources for light industries, a scenario which gave rise to the emergence of the industrial factor market distortion problem. Second, overinvestment and inefficiency problems also occurred. The overall efficiency of the manufacturing industry decreased due to the excessive investment in the heavy and chemical sectors (Park, 2016). Moreover, the issue of overlapping investment in the target industries also led to a concentration of capital in certain sectors rather than broader investments in industry and infrastructure as a whole. Third, the programme created asymmetrical economic power centred on large conglomerates. Capital and technology intensive industrialisation created industrial policies in favour of large companies, which turned them into chaebol. This was because of the resource allocation distortion problem that occurred between large companies and SMEs that resulted in an asymmetry of economic power. These problems that arose were the price paid for rapid industrialisation and economic growth and could not be avoided.

During this period between the 1970s and the early 1980s, developmental spatial strategies began to manifest more explicitly. The government's efforts to nurture targeted industries were spatially implemented, and this led to the efficient development of the national territory through a strategy of target industries in specific regions (Park and Gimm, 2013: 154-160). For instance, industries that were heavily reliant on imports of raw materials and components, and the export of finished products were mostly located around the large ports within Korea's southeastern coastal areas. Similarly, the electronics industry was also based in the capital region and the southeastern part of Korea, such as Suwon and Gumi. This spatially selective industrialisation can be interpreted as a strategy that create path dependence on and within specific industries by their utilising existing labour forces, industrial facilities, and infrastructure rather than creating new industrial paths across the national territory as a whole (Park, 2008). A problem with this approach is that the spatially uneven industrialisation targeted regions has facilitated population and investment inflow into certain regions, which, in turn, consolidating uneven development between Seoul-metropolitan areas and non-metropolitan areas and regional conflicts between *Gyeongsang* (Southeast) and *Jeolla* (Southwest).

4.2.3 Industrial and institutional structural upgrading

The 1980s was a time when, in the course of industrialisation and economic growth, market autonomy expanded in Korea. The selective industrial development laws enacted in the early stages of heavy and chemical industrialisation were abolished, and the Manufacturing Industrial Development Act was enacted in 1986. The fundamental reasons for the shift were that there were not only negative views as to the side effects of the selective industrial policies and government benefits, but also efforts to join the global trend of economic liberalisation. The basic goals of the new industrial law were to establish a private autonomous by eliminating various regulations and avoiding particular support for individual industries. In addition to this, it aimed at implementing an industrial rationalisation plan to fully adopt market economic principles and improve industrial technology and productivity by public-private collaboration (Koo, 2010). The main reason for this shift in direction was changes in external conditions. With the Uruguay Round (UR) and the launch of the WTO, domestic manufacturing products had to compete with foreign products -even though there was a concurrent improvement in export conditions by the easing of tariff barriers with major trading partners. Due to globalisation and market opening, existing industrial policy measures were restricted by supra-national organisations, and policy adjustment was inevitable. In addition to this, internal factors also promoted industrial structural upgrading (Lee, 2016). First, since the mid-1980s, the quantitative and qualitative growth of the industries and international trade led to active market opening and confidence in global competition. Specifically, since achieving its first trade surplus in 1986, the volume of Korean trade had doubled in five years. Furthermore, the central government judged that it was more necessary to enter the global markets of the protected and nurtured industries in order to advance the country's industrial structure and secure competitiveness in Korea's manufacturing sectors. Second, since labour-intensive industries such as assembly and processing began to relocate to China due to increasing national income and labour costs, technology-intensive industries needed to replace the old manufacturing industries. With these internal and external environmental changes, the industrial policies that strategically nurtured specific manufacturing sectors no longer suited Korea. These changes in the Korean industrialisation strategy did not merely reflect the influence of neoliberalisation and globalisation or its integration into global capitalism. Instead, they indicated the dynamic evolution of Korean state developmentalism within variegated system of capitalism.

The central government shifted its industrial development direction from selective industrial development to general and functional support. This shift can be interpreted as a structurally upgrade Korean industries in light of the fact that they had moved beyond the infant stage of industrial development. A scenario which implies that the Korean developmental state is not disappearing but

undergoing evolution qualitatively; upgrading existing development paths rather than creating new ones. Furthermore, the selective industrialisation strategy that was adopted and under which it was difficult for the government to efficiently allocate all resources, could actually lead to a distortion of industrial development after a certain development stage (Kim and Lee, 2014). As a result, the Korean government attempted to transition to a more general industrial policy. Figure 4.1 shows the macroscopic trend of transformations in national development and industrial policies in Korea. The figure illustrates that there were short-term and specific industry-oriented industrial policies by the mid-1980s; and long-term and comprehensive policies from the mid-1980s. As noted, the Korean economy grew rapidly, was already incorporated into the global economy and, as a consequence, the country needed to prioritise international relations rather than domestic political interests. Given this industrial and institutional transformation, Korea started to depart from state developmentalism and the so-called post-developmentalism began to emerge from this point onwards.

Even as state developmentalism gradually faded out and post-developmentalism began to emerge, the transformation of the state development model did not occur overnight, and elements of state interventionism remained. For instance, starting from the 1990s, the central government decided to nurture high-tech industries and expanded investment and support for the IT device manufacturing industry. One of the primary methods was of achieving the same was the government assisting corporations with their R&D activities through policy financing. Representative examples include the Science and Technology Promotion fund and the Information Technology Promotion fund that were enacted in 1992. In 1995, the size and scope of the funds to the high-tech industries were expanded based on the Manufacturing Industrial Development Act (Kim *et al.*, 2015). In addition to this government financial support for corporate R&D activities, there were tax reductions and infrastructure support to enable companies to set their mid- to long-term innovation activity plans. Through such interventions, Korea's central government actively nurtured specific sectors even after the structural upgrading and the emergence of post-developmentalism. What differed from the scenario of state developmentalism was that rather than directly nurturing the target industries, the government plays a role in assisting companies to grow autonomously. This policy assistance reflects a general trend seen not only in the developmental state but also in many other countries. While there may be doubts about whether this can be considered to be vestige of state developmentalism, this study's perspective deems it as such due to the fact that the state directly designated sectors for nurturing.

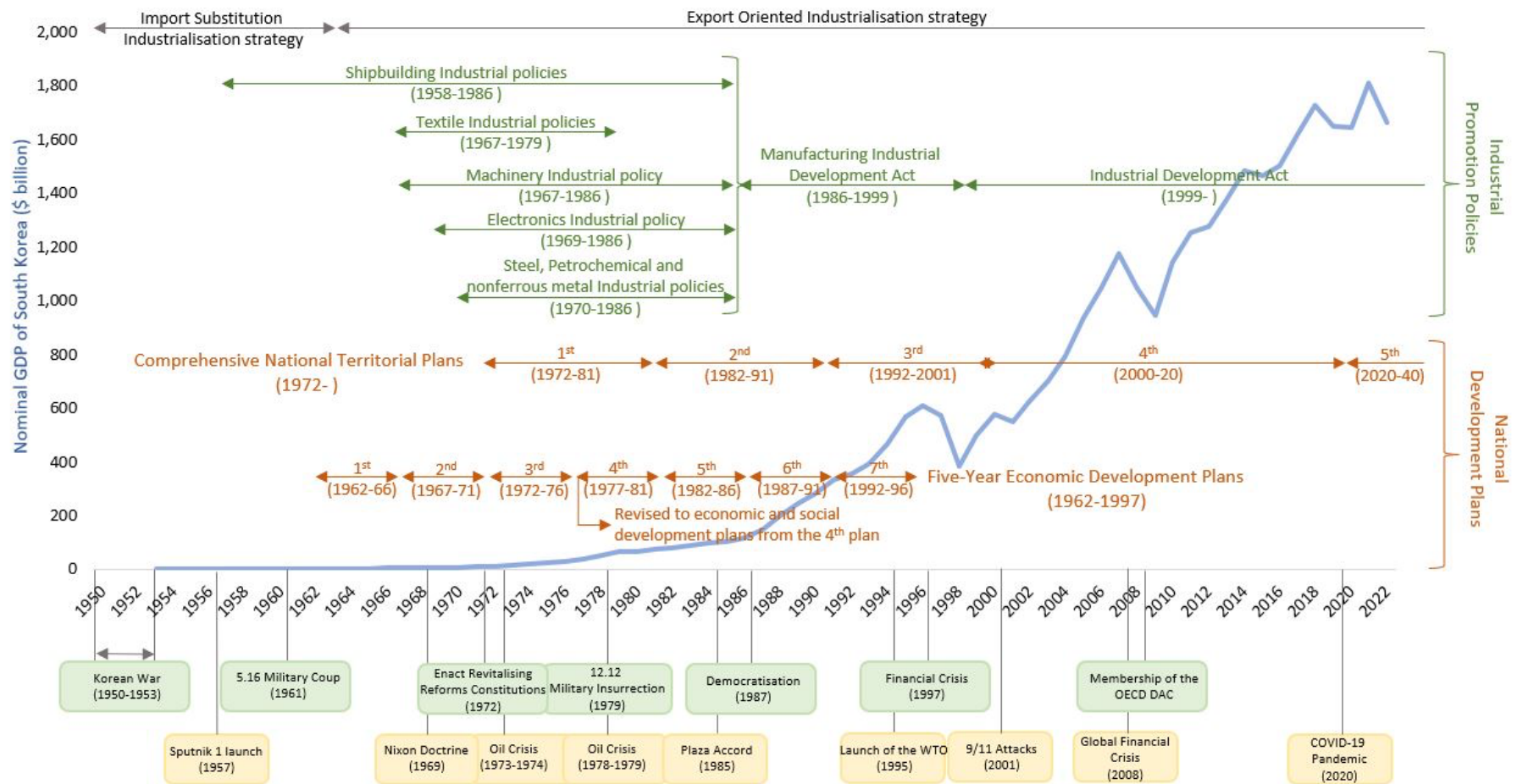


Figure 4.1 Economic development and a shift in industrial strategies in Korea
Source: Author's own.

4.3 Key actors of developmental strategic industrialisation and regional development

When examining the transition process of Korea's industrialisation strategy, it is evident that the state played a crucial role. In particular, the central government formulated and amended industrial and territorial policies in line with national operational strategies, while subordinate organisations implemented them according to the government's plans. However, while the central government played a significant role, viewing Korea's industrialisation solely as the product of state or central government's efforts would be overly simplistic. This section elaborates on the roles of various actors associated with the central government, and considers a developmental pilot agency, state-owned banks, and chaebol to have been key players in Korea's strategic industrialisation. It explains the roles that these actors played in Korea's strategic industrialisation as pioneers of the developmental state, and comments on their significance which was far beyond their being 'mere' instruments of the central government.

4.3.1 The 'Brain' of the developmental state: Economic Planning Board

Explaining the characteristics of the developmental state, Johnson (1982) pointed to the existence of few pilot agencies and how they had acted as key players in East Asian economic growth. These assorted agencies were The Ministry of International Trade and Industry (MITI) in Japan, the Economic Planning Board (EPB) in Korea, and the Industrial Development Bureau (IDB) in Taiwan. In order to understand Korea's industrial development and its heavy and chemical industrialisation, it is necessary to elaborate on the role of the EPB and how it was engaged with the strategic industrialisation programme in Korea. The EPB was a powerful pilot agency during the 1960s and 1970s, and led the five-year economic development plans and major economic development policies. It was first established in 1961 to plan economic policies, manage macroeconomics, organise government budgets, and prepare statistics while also overseeing-related ministries such as the Ministry of Commerce and Industry and the Treasury (KDI, 2008). The roles of the EPB were specified in Article 23 of the Government Organization Act, which stipulated that the EPB played roles in establishing and developing comprehensive development plans for the national economy, organising and executing budgets, and planning and coordinating both domestic and foreign resources ³ (Government Organization Act, 1973).

The purpose of the EPB was to deliberate and implement investment priorities for economic

³ When the Government Organisation Act was revised in 1973, Article 23 was changed to the Economic Planning Board. This was maintained until revision in 1994. In 1994, the EPB was merged with the Treasury and Article 23 was changed to the Ministry of Finance and Economy. Since then, Korea's pilot agency has not existed.

development, and to be in charge of the country's major economic-related tasks, such as coordinating differences between ministries, price stability, and foreign economic policies. The EPB was staffed by economic bureaucrats who had majored in economics and law. With its enormous role and the presence of economic elites, the EPB was able to promote economic development policies in a very centralised manner under full delegation from the president during the period of high growth (Thurbon, 2016: 44-46). For instance, Korea's economic policies had to be deliberated and approved at a meeting of economic ministers led by the EPB, which, unlike other ministries, was closely related to the President's Office. The position of the EPB in the central government can be seen in Figure 4.2. During the developmental era, the highest decision-making body of the Korean state was the President's Office. In the 1960s and 1970s, when major industrial and economic policies, such as the Comprehensive National Territorial Development plans were planned and implemented at the national level, the Blue House promoted major policies by giving orders and instructing related ministries and industries. The EPB acted as a muscle to institutionalise and implement the president's orders and instruction.

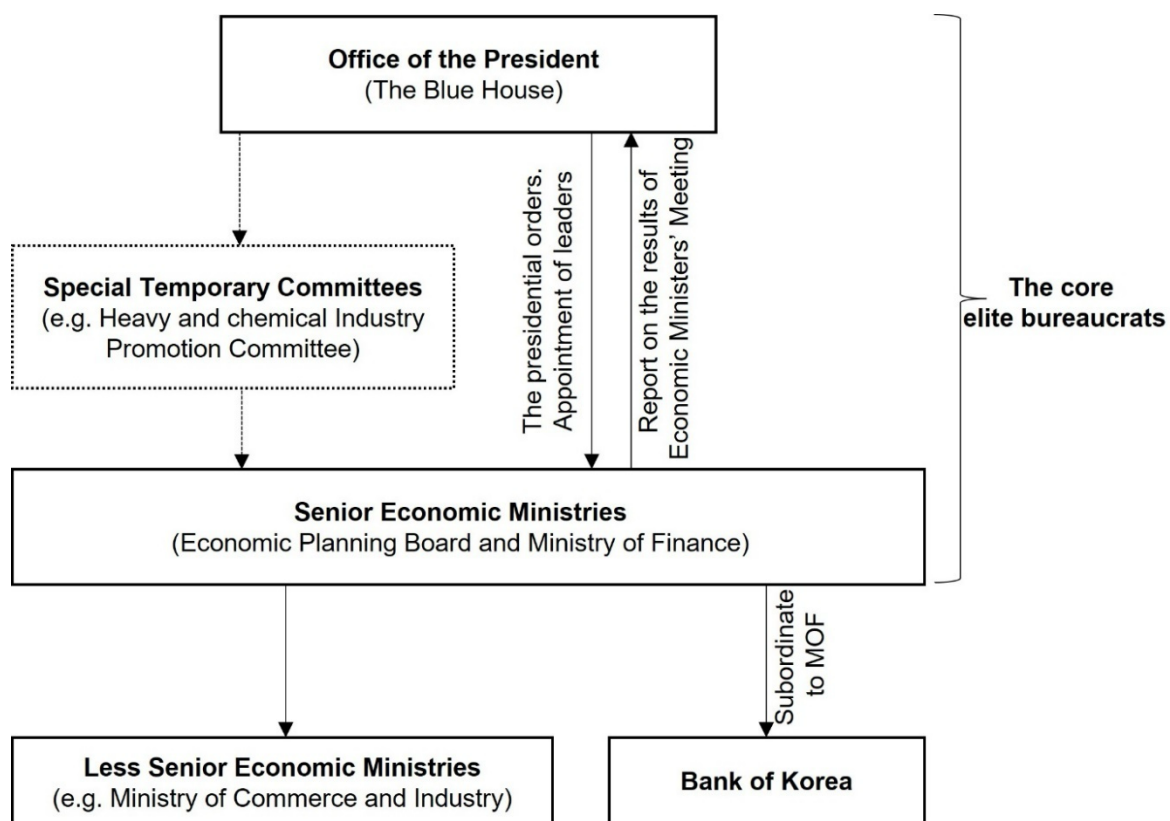


Figure 4.2 Economic related offices were at the core of other offices in the developmental state.

Source: Adopted from Thurbon (2016) p.45; Author's modification.

The establishment and operation of the EPB was due to the state's inability to advocate free market capitalism at the time. Korea lacked capital, resources, and competitiveness to operate the country under a market logic, and the state was forced to intervene and distort the market against the free competition system. All that, the state could do was apply strict discipline and control both private and public sectors, and it was the EPB which centrally planned and implemented all the policies according to the state's control capabilities. In this regard, the dissolution of the EPB in 1994 can be seen to show that the state had grown and become a major capitalist state that no longer needed centralised control. At the same time, losing the state's authoritarian capabilities to control everything can be seen as evidence of the country's change to a post-developmental state. The functions of the EPB were distributed among various ministries including the Ministry of Economy and Finance and the Ministry of Trade, Industry and Energy; there is no longer a single national institution that could replace it.

4.3.2 Policy financing agents in the developmental state: State-owned banks

One of the characteristics of the developmental state is policy financing through governmental financial control. The mid-1900s, when the developmental state began to emerge, place under the Bretton Woods system that was centred on American hegemony. The Bretton Woods system regulated free capital movements to ensure exchange rate stability and national autonomy through a fixed exchange rate. Korea was able to maintain its policy autonomy and conduct domestic financial control under this system (Lim, 2018: 42-43). Policy financing could be used as a significant means of industrial policy due to the fixed exchange rate and the restriction of capital movement. As industrialisation had only just begun in Korea at this time, the country exhibited a very high possibility of market failure as well as low credit, so it was difficult for the country to secure loans for technology development and key industries because of the latter's unclear potential profitability. As a result, it had to rely on policy financing. In addition to this, the Korean developmental state utilised policy financing to foster leading companies and support economic development for strategic industrialisation.

Policy financing to achieve strategic industrialisation was carried out through state-owned banks, including the Export-Import Bank, the Korea Development Bank, and the Small and Medium Business Bank (currently Industrial Bank of Korea); as shown in Table 4.3. With a tacit guarantee from the government, these banks raised funds for policy financing through the issuing bank bonds through the financial market and personal deposits. The main purpose and tasks of these state-owned banks were financial support for industrial development. The policy financing agencies not only dealt with

market failures but also actively provided policy financing to overcome structural weaknesses of the state's mid- to long-term economic development plans. The rapid transition of Korea's industrial development strategy necessitated policy financing, as industrial strategies were typically revised approximately every 20 years. This was essential as financial support for industrial transition was required before the industrial structure could stabilise. For example, there was financial support for industrial infrastructure in the 1950s and 1960s, facility funding to nurture heavy and chemical industries in the 1970s and 1980s, high-tech industries such as semiconductors in the 1990s, and corporate restructuring funds after the financial crisis in 1997. Policy financing was useful in all stages of industrial development, and the state-owned banks played a major role within raising funds in the developmental strategic industrialisation policy.

Table 4.3 State-owned banks established during state developmentalism

State-owned Banks (Year of establishment)	Purpose and key roles of the banks
Korea Development Bank (1954)	Supply and management of funds for the development and promotion of industries, Infrastructure construction, Regional development, and Financial market stabilisation
Small and Medium Business Bank (1961)	Establishment of effective credit system for Small and Medium Businesses
Export-Import Bank (1976)	Provision of finance for external economic cooperation (e.g., Import and Export, Foreign Direct Investment, and Overseas Resource Development)

Currently, Korea has a higher proportion of policy financing than other capitalist countries. According to the OECD Financing SMEs and Entrepreneurs 2022 report, policy financing accounts for 12.1% in Korea, which is higher than the UK's figure of 2.4%, and the USA's figure of 9%, lower than Hungary's recorded percentage of 14.4% and Chile's 19%. In general, a policy financing ratio tends to be high in countries with low national credit ratings, but Korea has a high policy financing ratio despite its high credit rating; a scenario that is interpreted as highlighting the role of its state-owned banks (Son and Kim, 2016). The role of policy financing through state-owned banks was prominent during the Asian financial crisis in 1997 and has also been evident more recently during the mid-2010s shipbuilding industrial crisis. Specifically, during industrial crises, the state-owned banks actively intervened by purchasing the bonds of distressed companies to prevent their bankruptcy. These interventions were carried out in response to the bank's own judgement as well as in answer to the demands from the central government (even from the President's Office) and the National Assembly (discuss further in Chapter 7). Given this, it can be seen that, the role of policy financing and the state-owned banks in Korea has continued from the developmental era because they have sought to both

prevent financial failure and decline within strategic industries. This can be interpreted as an element of the developmental characteristics still remaining in terms of policy financing continue to be a causal actor in driving industrial development and growth, which, in some aspects, contrast with the characteristics commonly associated with the post-developmental state.

4.3.3 The practitioner of the industrial and economic policies: Growing from entrepreneurs to the national champions to chaebol

To understand state developmentalism and its evolution, it is crucial to consider the role of the actors that made it possible. The Korean developmental government had the political power to plan for economic growth and industrialisation; however, the Korean state lacked the economic and entrepreneurial capabilities to realise those plans, and, as a result, the central government had to rely on the roles of specific actors. Given this, it is necessary to highlight how early Korean businesses interacted with the state and examine how the national development model influenced their mode of corporate operations (see, for further Chapter 7). Korean businesses and entrepreneurs mostly emerged between the 1940s and 1950s to fulfil orders from the government. At the time, the way a company was formed was to pay off government-owned property or to participate in the distribution of aid materials. Property that the government could not afford was privatised to executives or related people who worked for the company. In addition, people dealing with US aid and war goods began to form companies. The former who got industrial facilities grew companies through trade with neighbouring countries, whereas the latter accumulated industrial capital through international trade. Early entrepreneurs who started businesses during this period accumulated capital through trade, and when export promotion economic and industrial policies began after 1961, they actively engaged with the system and gradually became more prominent capitalists. The Park Chung-hee leadership, however, regarded the growing number of entrepreneurs to be fraudulent capitalists and arrested them. Entrepreneurs had to actively cooperate with the national economic reconstruction project to escape such charges and they were forced to follow the government's instructions whether they liked them or not; thereby expanding or changing their business areas to key sectors such as cement, steel, fertiliser, and nylon. Their participation in national level projects in earnest started with the Four Core Factory Construction plan in the 1960s. The plan was designed to take advantage of Korea's cheap labour with the country serving as a factory for Japan. The plan was to grow Korea's heavy industries through subcontracting to Japanese companies, but this was not put into practice because of the failure of negotiations with Japan⁴ (Woo, 1992). Since the plan itself was created on the premise of

⁴ Japan was passive in direct investment and cooperation due to Korea's lack of industrial ownership, low

cooperation with Japan, the state-led industrialisation strategy was abolished, and only the shipbuilding industry was transferred to private sector (Park, 2008). Based on this experience, the government changed its strategy to a private-led and government-sponsored strategy⁵, instead of state-led projects. The Park administration promoted the privatisation policy of SOEs in the name of rationalising the management of SOEs and mobilising capital for economic growth and industrialisation; resulting in private firms and entrepreneurs being able to acquire SOEs at a low price (Baek, 2004).

In the 1970s, the firms grew into large conglomerate groups, through the heavy and chemical industrialisation programme. The latter would subsequently dominate the Korean economy and become the subject of ongoing controversy. After the declaration of the heavy and chemical industrialisation in 1973, the Korean government needed an implementer to achieve its policy goals. In the early 1970s, there were companies in the six strategic industries, but the corporate scale was too small, and they did not show remarkable performance. In order to develop the heavy and chemical industrial sectors, the government recognised that large capitalist organisations⁶ were needed as strategic sub-partners and therefore it created special relations between the state and the firms that could lead the state's industrialisation strategies (Koo, 2010). Unlike the labour-intensive light industries, the heavy and chemical industries are capital and technology-intensive industries and have the characteristics of economies of scale. As a result, it was naturally advantageous for large companies to participate within those sectors. However, while such companies were said to be Korea's large companies at the time, they could not afford to invest in industrial facilities. Due to this, the early

technology level, and poor supply of raw materials. Japan wanted Korea to import capital goods from Japan. The failure to secure industrial capital from Japan contribute to the failure of the Four Core Factory Construction plan (Park, 2008).

⁵ In fact, the private companies were not able to decide everything. For example, in the case of the Hyundai Construction, the scale and purpose of shipyard construction, the selection of joint companies, and management rights were directly planned and led by the government. This later changed from direct involvement in private companies to a position of support (i.e., guarantee of payment for foreign loan, tax and financial benefit, etc) after Hyundai got foreign investment, but the government still had a significant impact on the industry (Choi, 2015).

⁶ The large capitalist concerns were already running their own businesses. Most of the companies that led heavy and chemical industrialisation were founded in the late 1940s and early 1950s. They engaged in business activities by processing and distributing aid materials from the US, and manufacturing light industrial products for the domestic market. The relationship between the state and the firms was not a strategic sub-partner from the beginning. After the military coup in 1961, the government tried to manage and tame the firms who accumulated capital in illegal ways. The government enacted a law against illegal accumulation and controlled firms judicially, *de facto* threateningly. Using the law, some of the firms were instructed to take charge of target industries and production and export targets were allocated to them (O, 1995).

entrepreneurs initially hesitated when it came to their participating in the industrial programme. In order to make the entrepreneurs participate in the heavy and chemical industrial development programme, the government tried to forcibly select and allocate sectors through the following means.

First, the government targeted certain industrial sectors (the six strategic industries) that would shift from ISI to EOI and (forcibly) made certain companies participate in the industrialisation programme; for which they received government benefits (Jang, 2020). For example, in the late 1960s, the government enacted laws to promote the machinery, shipbuilding, textile, and electronics industries. Based on these laws, new entries into these industries were prohibited, and financial and tax support were provided. Second, the firms that had gained oligopolistic status raised capital through the government's export-drive policy. The government protected domestic industry and increased exports by strengthening import regulations and providing export subsidies (Yoon, 2006). In addition to this, the government implemented an export target system to promote export. For instance, the MCI set export targets for each item, region and target country, and the firms had to achieve the target (Baek, 2004). Third, the firms obtained industrial capital through overseas loans, but the government controlled the overseas finances. In order to introduce foreign capital, government payment guarantees were compulsory, and the firms had to provide pre-emptive security of more than a hundred percent of the respective deposits (Cho, 2009). Without the national level guarantee agency, loan industrial capital was impossible, and the role of the state in introducing overseas loans was significant because Korea had no guarantee agency above the state at the time. Lastly, fourth, the companies were able to acquire SOEs cheaply from the government, and they were able to expand the scope of their businesses. In the 1960s, the government established SOEs in the fertiliser, steel, chemicals, and shipbuilding sectors. The SOEs which had oligopolistic status were privatised to mobilise government finances and pursue an efficient management system based on competitive principles (Baek, 2004).

Through these central efforts in the early stages of the heavy and chemical industrialisation programme, the participant companies were passive government policy implementers. Thereafter, from the mid-1970s, private companies began to participate competitively in heavy and chemical industrialisation because of the government's incentives and entrepreneurship to expand their businesses. More companies began to enter the heavy and chemical sectors, which was still underdeveloped, as the sectors were recognised as being ones with great growth potential, and entrepreneurs' active market development and product innovation enabled them to be national champions. In addition to this, entrepreneurs at the time actively participated in the industrialisation programme with a vision of making money for the country. This entrepreneurial mindset was based

on hegemony project carried out by Park's regime of which workers at the time had a selfless mindset and were willing to devote their labour to the country (Park and Gimm, 2013: 160-164). This project implanted nation's visions to entrepreneurs who then had a spirit and mindset of growing company for the country. Their entrepreneurship can be seen as having been created by the state to some extent; a driving force for active business activities despite the economic and political risks⁷ that existed during the initial stage of industrialisation.

The strategy that attracted participants to the industrial programme did, however, also result in the creation of an economic and industrial structure that was centred around a small number of large conglomerates. A small number of large companies were selected to operate each industrial sector, and SMEs were induced to merge with large companies. Table 4.4 shows the major companies that participated in the government industrial programme. Companies that had already accumulated capital via light industry and the US aid have established companies and acquired small companies with government policy aid and they were able to expand scope of business. With the exception of the steel industry, the sectors began to be developed by private companies, and those companies became the national champions who drove (and drive) Korea's major industrial sectors. The national champions were in charge of several sectors simultaneously, and accelerated capital accumulation with a variety of business activities, which made the national champions grow into chaebols.

Table 4.4 Major operators of the heavy and chemical industrialisation strategy

Company	Sector	Established and acquired companies
Hyundai	Shipbuilding	Hyundai Heavy Industries , Incheon Steel, Daehan Aluminium
Samsung	Chemical, Electronics, Shipbuilding	Samsung Heavy Industries, Samsung Petrochemical, Samsung Electro-Mechanics, Samsung Corning, Samsung Electronics , Daesung Heavy Industries, Woojin Shipbuilding, Korea Semiconductor
Lucky-Goldstar	Chemical, Electronics	Goldstar Electronics, Goldstar Electric, Lucky Petrochemical , Daehan Semiconductor, Daesung Ethanol
Daewoo	Electronics, Shipbuilding	Daewoo Electronics , Korea Machinery, Okpo Shipbuilding, Sehan Motors, Jechul Chemical, Yongyang Company
Ssangyong	Chemical, Machinery	Ssangyong Heavy Industries, Ssangyong Oil Refinery , Seungri Machinery, TongYang Heavy Industries
Kumho	Chemical	Korea Synthetic Rubber, Kumho Chemical
Hyosung	Chemical, Nonferrous metal	Hangyoung Industrial Co. Ltd.

* In bold, established businesses by the selected company.

** The steel industry was operated by a state-run company, Pohang Iron and Steel Company.

Source: Adopted from Baek (2004), p.43; Author's modification.

⁷ As noted, in order to nurture companies and industries within the government policy incentives, there were clearly political risks with regards to pressures that the companies must fulfil goals set by the central government.

In the strategic industrialisation process of the Korean developmental state, entrepreneurs played a major role alongside the pilot agency and state-run banks. Though it would be inaccurate to attribute industrialisation solely to entrepreneurial spirit, they acted as agents who materialised the industrialisation plans that the government could not have achieved on its own. The collaboration between the Korean developmental government and the chaebols created the path of the Korean-style economic development, with each conglomerate developing its division of labour within and then later beyond Korea. This chaebol-centred economic development and the issues related to their family-run management structures became major causes of crises for the developmental state; however, the strategic industrialisation, the efforts of the state along, and the financing and execution capabilities of the early entrepreneurs, were also collaborate results that stemmed from the interactions of these major actors.

4.4 From geopolitics to geo-economics: Korean industrial transformation and changes in variegated capitalism

To elaborate on the successful industrialisation and economic growth in Korea, there is a tendency to focus on internal factors of the developmental state including state's autonomy and capabilities and the role of key actors. Korea's various industrialisation policies and systems were created under the EOI strategy, which means that both internal and external factors need to be considered. Furthermore, various policies and institutions implemented under the EOI strategy were created in a specific context; a combination of the Bretton Woods, the Cold War, and the authoritarian developmental state (Ji, 2011: 38-39). It implies that there is something that is missed only by looking at the internal system of the developmental state. This section sheds light on the external factors that can interconnect and integrate between the variegated system of capitalism and the Korean developmental state. The first subsection explains how Korean developmental state interacted with the international situation during the Cold War. The second subsection elaborates on how the post-developmental state interacts with, and respond to the New Cold War era in the 2020s.

4.4.1 The Cold War and its impact on the developmental state

After WWII, the underdeveloped situation in newly independent countries made external aid and technologically transfer essential. East Asian countries were incorporated into the US-led world order through their forming close strategic relations with the US; a hegemonic power at the time. The US-led market economy countries under the Bretton Woods system, whilst Soviet-friendly countries formed the Council for Mutual Economic Assistance (COMECON). The US-led body carried out

enormous military and economic aid to consolidate its influence in East Asia. For example, the US provided USD 15 billion in aid to Korea between 1945 and 1984; similar to the amount spent on the Marshall Plan. Taiwan received about USD 6.3 billion in aid from the US, and East Asian countries were able to enjoy preferential trade measures (Lim, 2018: 41-42). East Asian countries received a lot of help to expand US-led influence and block Soviet influence and they were able to implement industrialisation and economic development with the aid materials.

Aid to East Asian countries began, however, to decrease in the late 1950s and gradually changed from free aid to loans (Yoon, 2006). During the time, Korea had to rely on aid material due to its lacking basic components such as food, construction materials and industrial capital. Given this scenario, Korea had to come up with ways to develop its economy on its own and, in the 1960s, the Park Chung-hee leadership transformed the country's industrial strategy from ISI to EOI. The EOI strategy was based on exporting products that had undergone assembly and processing using Korea's cheap labour forces, and the favourable trade environment for Korea at that time also had a significant impact. The period between 1960 and 1973 was when the developmental state laid the foundation for its development into a self-sustaining state, and the US opened its markets to late industrialised countries when it comes to labour-intensive goods. The US did not take issues with late industrialised countries' institutional support for those industries such as dumping and export subsidies, resulting in formation of the favourable trade environment for the developmental state during the Cold War (Kim, 2003). Through this changing global condition, a new international division of labour that re-shapes variegation in global capitalism emerged, and the Korean developmental state was integrated into the variegated system of capitalism and effectively leveraged this integration to lay the foundation for country's economic growth.

Along with this dependency on the US, some Korean companies were able to grow into large conglomerates through their alliances with the US military. During the US military's participation in the Vietnam War, the US military used Korean companies for procurement (Glassman, 2018: 250-253; Glassman and Choi, 2014). Some companies in Korea earned foreign currency by participating in the procurement projects which helped them to accumulate large-scale industrial capital. For instance, Hanjin and Hyundai Construction were actively involved in the procurement project of the US military, and the two companies launched and acquired various industries, including shipbuilding, and they also grew into chaebols. In addition, the networks obtained through their alliances with the US military were actively used to get overseas loans to cover insufficient industrial capital (Doucette and Park, 2020: 24-26). The impact of the Cold War was seen not only in the economic and institutional aspects of the state, but also with regard to the growth process of certain companies that have played leading

roles in the developmental state within variegated capitalism. During the Cold War, the developmental states in East Asia were utilised by the US-led hegemony and at the same time, those states gained opportunity to quickly jump into global capitalism.

These external factors in the mid- to late 20th century became major factors in the emergence of the developmental state in East Asia. If there had been no such global settings, it is highly likely that the developmental state discussed herein would not have existed. The specific global conditions that existed also serve as evidence to suggest that state developmentalism could not have become a universal development model. A contention evidenced by the fact that both East Asian and Latin American countries implemented national driven industrial strategy and policies, but the results were different due to the external environmental contexts being different. As such, the Korean state developmentalism was not just created, but emerged through the combination of various internal and external settings.

4.4.2 The 'New' Cold War and the emergence of post-developmentalism

The fall of the Berlin Wall and the collapse of the Iron Curtain not only mean politically the end of the Cold War, but also economically the emergence of hidden markets and industrial networks. The most explicit economic change since the incorporation of the communist countries, which once accounted for one-third of the world's population, into capitalism was globalisation. The spread of capitalism made the global economy seem more united, MNCs expanded their production networks (Coe and Yeung, 2015: 2-8), and marketing strategies were also further developed through integration with the new markets and regional assets in the old socialist countries. As cheap and high-quality labour from the old socialist countries was supplied to capitalist markets, the international division of labour began in earnest. MNCs in the US and Western Europe offset long-distance transportation costs by cutting labour costs and entering new markets. Concurrently, as competition between ideologies disappeared, the reason for the existence of the post-war alliance system was undermined. This led to neoliberal globalisation being in the spotlight, and the role of the state seemed to be reduced; indicating the evolution of variegated capitalism. Over the last 30 years, economic and trade liberalisation has been emphasised, the importance of economic security seems to have receded because the international economic order was established to minimise restrictions on the movement and exchange of goods, capital and labour, and the liberal revival period and globalisation spread together. The emergence of a neoliberal capitalist state and globalisation accelerated economic growth and also brought about many changes in the developmental state as well. Market and international relations have become more significant than ever, and the leading role of companies has become more important than

institutional support of the state in global competition; all of which imply that the emergence of post-developmentalism after the post-Cold War era.

In the era of post-developmentalism, the risk of weaponizing economic capacities and interconnected global impacts such as the global financial crises, Brexit, COVID-19 and Russia's invasion of Ukraine, have brought about a heightened emphasis on economic security. In this context, external environmental settings that are influencing the Korean post-developmentalism can be identified as the 'New Cold War'. The New Cold War refers to the international situation that has arisen from global political and economic competition centred around the US and China. It has unfolded in a more complex manner that lies beyond mere ideological conflicts, and also encompasses aspects such as trade and technology (Financial Times, 5 October 2020). The New Cold War differs from the Cold War in two aspects. First, it is a conflict of economic hegemony not a conflict of ideological hegemony. Economic tools such as resources, industries, and trade sanctions have begun to be used to promote and protect state interests, to obtain beneficial geopolitical consequences, and to influence other countries' economic behaviour toward geopolitical goals. Second, it is an ironic situation in which cooperation must be continually align with conflict. Whilst the US and China are conflicting entities, they are also major trading partners, so economic relations continue (Ford, 2023).

Within this context, the role of the state is once again being emphasised in international relations but the core of the latter has shifted from geopolitics to geo-economics. During times which emphasise geo-economics, the role of the state qualitatively differs from that of state developmentalism and evolves in a more strategic and complex manner. This is because, amidst ideological oppositions, the path for the Korean developmental state was already created, and its byproducts could be utilised as resources for development. However, in the context of the New Cold War, where economic cooperation and conflicts coexist, Korea cannot align itself with either side. As both the US and China are major trading partners, Korea must carefully position itself between them. For instance, in the current semiconductor trade conflict, the so-called the Chip War, the Korean government must consider national interests while simultaneously balancing relations with both countries, requiring a nuanced consideration of political economy. This is an example of impact of the New Cold War on a post-developmental state. Rather than placing the state at the centre and defining and viewing it based on its roles and characteristics, as in the developmental state, it is necessary to view post-developmentalism by focusing on the conjuncture and context, and examining how the state is undergoing the dynamic evolution within variegated capitalism.

4.5 Conclusions

After the Korean War, and for about 70 years, Korea's industrial sector achieved remarkable growth both quantitatively and qualitatively, transitioning from a typical developing country's light industry to advanced industries. This rapid industrialisation, however, did not proceed smoothly, and took place within a unique conjuncture in a variegated system of global capitalism. After independence and the Korean War, industrial facilities and capital were virtually non-existent, and Korea could only develop its industries with heavy reliance on aid from the US. The situation began to improve after the shift to the EOI strategy in the 1960s, followed by government-led efforts to nurture heavy and chemical industry from the 1970s onwards. These industries, moving beyond their initial role of import substitution, rapidly evolved into export industries and formed the foundation of Korea's contemporary economy and industrial structure. However, as government support focused on the heavy and chemical industries, issues such as over-investment and labour rights violation arose. The Korean developmental state overlooked these side effects in line because it was more focused on the principle of prioritising growth. As the competitiveness of the manufacturing sector declined due to these side effects in the 1980s, industrial rationalisation policies were implemented which sought to address some of these issues and upgrade assembly-line production methods to more R&D led advanced industries. As a result, various advanced industries, including the semiconductor industry developed throughout the 1990s. Since the 2000s and particularly after the Asian financial crisis, when Korea's industries reached a mature phase, the Korean state has gradually reduced strategic intervention in industries, and allowed companies to voluntarily compete in the global market. Nevertheless, strategic industries and state-led sectors still exist in Korea; sustaining the path dependent feature of the Korean state to date. For instance, industries either produce top export items or are targeted as future 'top' industries would be the sectors that the government continues to intervene to nurture. From this, it can be seen that Korea's developmental industrialisation strategy has changed in terms of target sectors and intervention methods, but its underlying intent and principles remain clearly intact.

There is also a need to acknowledge and comment on the roles played by key actors in the developmental process of Korean industrialisation. It appears that a pilot agency, state-owned banks, and conglomerates have had the most significant impact on country's the strategic industrialisation. The Korean pilot agency known as EPB oversaw Korea's territorial and industrial development from the 1960s to the early 1990s. The EPB wielded formidable power between the President's Office and major ministries in Korea, with the nation's top elites responsible for economic and industrial

development plans. In addition to this, state-owned banks played a crucial role in providing policy financing to ensure that plans set forth by the EPB could be effectively implemented. Given Korea's low creditworthiness at the time, it was challenging for companies to access foreign loans without government guarantees (discuss further in Chapter 6). Moreover, due to the lack of knowledge and experience, the risk of industrial development failure was significant, which policy financing mitigated against by supporting companies in line with the strategic industrialisation programme. This role persists to the present day, as the banks still intervene during the decline of key industries, such as the shipbuilding, by purchasing bonds and shares of distressed companies to prevent bankruptcy and provide financial support where needed. Finally, there were entrepreneurs who executed industrial development with the support of these policies and financial aid. Many of them had accumulated capital during the Japanese colonial period or started their businesses with aid from the US. Thereafter, by swiftly responding to government-led industrialisation policies, they gained monopolistic positions in key industries and their businesses grew into conglomerates; thereby contributing significantly to Korean industrialisation. While the EPB no longer exists, the rationality of planning at the national scale can still be found, and enables state-led development when necessary, such as urban development for the devolution and development of specific industrial cities. The role of state-owned banks and conglomerates also persists. These three actors have complemented each other to shape the developmental state in Korea, and their influence remains.

Finally, within this chapter, it is crucial to scrutinise the external setting in which Korea was able to develop and grow. During the developmental era, Korea found itself at the forefront of the Cold War. The US strategically supported the development of East Asian countries, including Korea, to prevent the spread of communist influence, resulting in relevant countries' successful industrialisation. Furthermore, Korea's participation in the Vietnam War in the 1970s strengthened its alliance with the US, and provided further opportunities for both the state and individual entrepreneurs to accumulate capital. After the end of the Cold War, with the rise of neoliberalisation and globalisation, geopolitical factors began to fade out and geo-economics began to gain prominence. With the ongoing economic and trade tensions between the US and China, known as the New Cold War, Korea once again finds itself at the forefront of an economic war. Unlike past ideological confrontations, this present conflict is based economic rivalry, and it is consequently far more difficult for Korea to lean towards one side in preference to the other. It follows, that in this so-called post-developmental era, the Korean state needs to undertake a greater role in navigating these external challenges.

Chapter 5. Mapping the evolution of the shipbuilding and semiconductor industries under Korean state developmentalism

5.1 Introduction

When discussing the economic and industrial structure of Korea, manufacturing and trade indicators are primarily used to illustrate the scale of Korea's economy and its position in the world. This is because Korea has developed industries predominantly in the manufacturing sector and has also created an export-oriented economy and industrial structure through its developmental strategic industrialisation programme. The target industries of the programme still remain major sectors in Korea, and their products account for more than 60% of the country's total export volume. As presented in Chapter 3, this study conducts a cross-sectoral comparative case study using the shipbuilding and semiconductor industries as cases among various target industries. While the development phases of the shipbuilding and semiconductor industries may not entirely align, they are both major industries in Korea and continue to be protected and nurtured by national level policies as they constitute large portion of exports. Therefore, the two industries are valuable to explain Korean (post)-developmentalism. This chapter first examines how the two industries of shipbuilding and semiconductor emerged and evolved under state developmentalism before conducting the cross-sectoral comparative case study is addressed in subsequent chapters. It explains the processes through which these two industries have developed, their significance both domestically and globally, and why Korea seeks to protect and nurture the two industries, and how this has made Korea undergo dynamic evolution rather than a straightforward transition to typical neoliberal state within variegated capitalism.

After this introduction section, the remaining sections of Chapter 5 provides a balanced discussion of issues related to the shipbuilding and semiconductor for cross-sectoral analysis in later chapters. Section 5.2 discusses the development and general characteristics of the shipbuilding industry, as well as its position in the global market. Section 5.3 focuses on the development and industrial characteristics of the semiconductor industry, along with global issues surrounding semiconductor and Korea's responses. Finally, section 5.4 underscores the importance of and value of these industries as cases and presents a series of conclusions.

5.2 The shipbuilding industry in Korea

5.2.1 The development path and geographies of the shipbuilding industry in Korea

The shipbuilding industry in Korea is a product of heavy and chemical industrialisation and a symbolic industry of Korea's economic development. However, before the strategic industrialisation programme, the shipbuilding industry was not entirely undeveloped. In 1937, Mitsubishi Heavy Industries established a shipyard in Busan, which, after independence, was incorporated into a state-owned enterprise called Daehan Shipbuilding Company. This marked the beginning of Korea's independent shipbuilding industry (Woo and Lee, 2018). Initially, the shipbuilding industry struggled due to a lack of technology and capital, which resulted in minimal orders, and inconsistent laws and institutions which left the industry neglected. The situation began to change in the 1960s when the First Five-Year Economic Development Plan was initiated, and from 1962 to 1966, the Shipbuilding Five-Year Plan was established. This plan aimed to procure a total of KRW 5 billion from domestic and foreign sources to produce ships. In addition, the government introduced a system whereby shipowners would only bear 10% of the total shipbuilding cost if they utilised domestic shipyards, with the government subsidising 40% and providing loans for the other 50% (Bae, 2018). However, since there was a lack of domestic demand for ships, the initial plan ended in failure.

Until the 1960s, Korea's shipbuilding industry strategy focused on import substitution to meet domestic demand. However, from the 1970s, it shifted towards export-oriented industries through active state intervention which connected the Korean economy with global variegated capitalism. The most significant strategic change was to entrust major shipyards to private conglomerates such as Hyundai, Samsung and Daewoo, and instructing them to construct large shipyards and build Very Large Crude Carriers (VLCCs) for export. In fact, this strategic adjustment stemmed not by the lessons learned from the failure of the initial trial of the shipbuilding plans, but by political reasons, specifically the Nixon doctrine. As the need for self-defence emerged in Korea, the shipbuilding industry was nurtured under the leadership of the EPB to promote the defence industry. From a policy perspective, this aspect appeared illogical. While the MCI initially played a controlling role in the shipbuilding plans, after the Nixon Doctrine and, especially after 1972 when Hyundai began constructing the Ulsan Shipyard, the MCI was largely sidelined, with the president and EPB taking the lead (Bae, 2018). Ultimately, it was the EPB and conglomerates, as mentioned in Chapter 4, which led the export-oriented shipbuilding industrial development.

After the formal beginning of Korea's shipbuilding industry through the collaboration which occurred between the EPB and Hyundai a long-term plan was established in 1973 under the heavy and

chemical industrialisation programme. This plan aimed to establish nine new shipyards by 1980 and an additional five shipyards by 1985, and was led by the MCI, with the goal of fostering Korean shipbuilding industry into an export-specialised sector capable of exporting large ships (Woo, 2019). As a result, two large shipyards were constructed in Geoje, operated by Samsung and Daewoo respectively. While the construction of the Ulsan shipyard in the early 1970s was a sudden decision prompted by the president's order and the EPB's collaboration with Hyundai, subsequent shipyard constructions were carried out from a policy strategic perspective. This top-down imposition of economic development in a subnational region is a hallmark of state developmentalism (resultant marginalisation of local governments is discussed in Chapter 8). In addition, long-term plans were set to nurture the industry, with detailed plans outlining specific ship types and sizes. The plans were implemented through rational policy-making processes rather than unilateral political decisions taken by the highest decision-makers. Through this, it can be observed that institutions emerged in the Korean developmental state and that industrialisation since the 1970s has taken place within this institutional framework.

The Korean shipbuilding industry, having grown underwent industrial rationalisation measures in the 1980s to address duplication and overinvestment, and a number of small and failing shipyards were consolidated or absorbed into larger shipyards. This restructuring of the shipbuilding industry helped enhance the global competitiveness of Korean shipyards, particularly when it comes to producing large and complex vessels in large-scale docks and modernised facilities. As a consequence, the Korean shipbuilding industry remained resilient even during the Asian financial crisis, and thence experienced significant growth during the mid-2000s global shipbuilding boom (Lee and Park, 2013). For approximately three decades from the mid-1980s to the mid-2010s, there was not a clear indication of state intervention following the industrial rationalisation measures; attributed to the industry's ability to thrive without significant government involvement. However, with the onset of the shipbuilding industry crisis in 2016, the government began to intervene again. In so doing, it provided financial support to struggling shipyards, addressed regional economic downturns, and implemented policies concerning shipyard workers. While responding to industrial downturns is not unique to the developmental state and is practiced by various countries, the deeper involvement of the *state* in Korea's case can be seen as a reflection of its developmental legacies. This is discussed in detail in Chapter 7.

Through its trajectory, Korea's shipbuilding industry is, in terms of geography, highly concentrated in specific regions. Figure 5.1 illustrates the production volume of the Korean shipbuilding industry as of 2021 and shows that approximately 80% of the total production came from

the southeastern coastal region. According to Ko and Koo (2023), the industrial coefficient of Korean shipbuilding industry concentration is relatively high compared to other manufacturing sectors, and illustrates a tendency to concentrate in specific regions that varied from 0.777 in 2010 to 0.856 in 2020. This geographically uneven location of Korea's shipbuilding industry can be attributed to the nature of the shipbuilding industry itself, as shipyards should be constructed in the deep waters of the

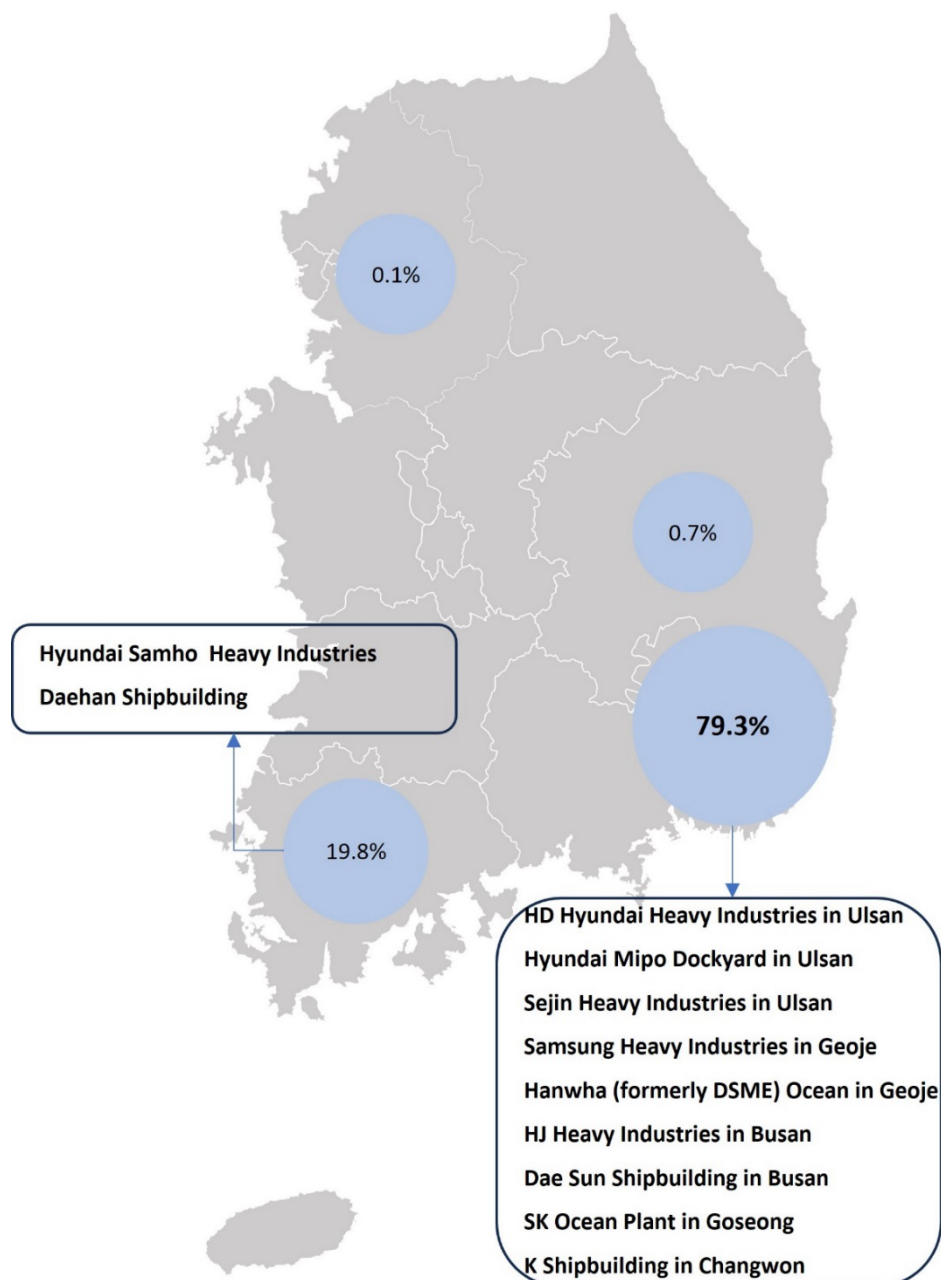


Figure 5.1 Geographical concentration of the Korean shipbuilding industry in the southeastern coastal region

Source: Author's own.

* The numbers represent the proportion of shipbuilding production as in 2021.

East Sea or the South Sea. However, deliberate decisions were made to locate shipyards in specific regions, primarily to integrate them with other industrial facilities in the southeast region. As a result, significant regional disparities in the shipbuilding industry development have occurred. The geographical concentration of the Korean shipbuilding industry made regional lock-ins in the industry, and these revealed vulnerability during industrial crises. Shipbuilding is both capital and labour intensive and the fact that the shipbuilding industry is clustered in specific regions implies that a significant portion of the population in these areas is directly or indirectly linked to the industry. This creates a structural vulnerability when regional economic crises come directly from industrial crises as the structure failed to create regional industrial diversity. In fact, during the shipbuilding downturn in the late 2010s, around 70% of the population in Geoje experienced repercussions from the slump (Woo, 2019).

5.2.2 General characteristics of the shipbuilding industry

The shipbuilding industry is responsible for the research, development, design, and manufacturing of various types of vessels, marine structures, and related shipbuilding materials. The types of ships include containerships, crude carriers, bulk carriers, LNG and LPG carriers, as well as vessels used in marine resource development such as offshore work vessels, oil drilling ships and floating oil and gas production facilities. Additionally, the industry encompasses the design and manufacturing of various equipment installed on ships including power, propulsion systems, auxiliary machinery and navigation equipment. Thus, the shipbuilding industry serve as a comprehensive assembly industry for not only forward industries such as energy, shipping, fisheries, and defence industries, but also has significant ripple effects on backward industries such as machinery, steel, electrical, electronics and chemical industries. Furthermore, the shipbuilding industry's value chain includes ship financing and insurance activities which are used facilitate the substantial funds required during the shipbuilding and delivery processes (OECD, 2019).

Another characteristic of the shipbuilding industry is its capital and labour-intensive aspects. Large scale facilities such as docks and cranes are essential for ship construction, and the role of both skilled technical worker and less-skilled labourers in utilising these facilities for ship design and production is crucial. Moreover, and unlike the mass production of small items, shipbuilding operates on a made-to-order basis according to the requirements of shipowners or shipping companies. Therefore, flexible labour utilisation is highly important for cost-saving in ship construction. It follows, that countries which are capable of enhancing industrial infrastructure, handling substantial labour costs, and securing advanced manpower for ship design are poised to develop the industry.

Representative countries include the UK, Germany, Norway, Japan, Korea and China. These countries are not competing simultaneously in the shipbuilding market. Instead, they have been leading countries at different times. Leadership in the shipbuilding industry shifts based on the ability to secure industrial competitiveness.

The factors determining industrial competitiveness are illustrated in Figure 5.2 and can be broadly categorised into quality competitiveness, price competitiveness, and institutional environment (Lee and Park, 2013). Quality competitiveness arises from securing technology and materials that can meet the requirements of shipowners or global standards. It is crucial that it is well integrated with backward industries to ensure the timely supply of appropriate materials and components for ships. Price competitiveness, in contrast, revolves around how much labour costs can be reduced. Even with quality competitiveness, becoming a global leader is challenging without price competitiveness. Lastly, policy support, and particularly financial assistance, is crucial. Since the shipbuilding process typically take 2-3 years from contract to delivery, financial trust and policy support are essential for companies and helps to ensure shipyard competitiveness.

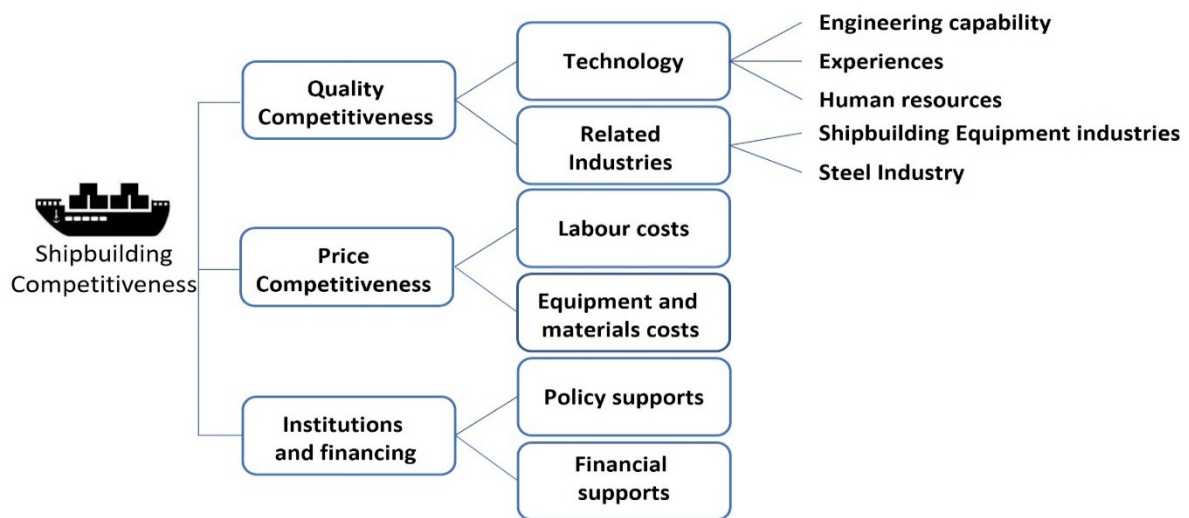


Figure 5.2 Shipbuilding competitiveness factors

Source: Author's own.

5.2.3 Changes in global shipbuilding leadership

The shipbuilding industry is a typical business cycle industry with a cycle of 30-35 years. The industrial cycle is formed by combining a ship's life cycle with global economic events such as post-war development, soaring oil energy demand, rising global trade volume, oil shocks and global financial crises. In line with this industrial cycle, the global shipbuilding leadership has moved around several countries and its characteristic is that latecomers eventually become leaders through the operation of a catch-up strategy.

The UK was the first global leader in the modern shipbuilding industry equipped with power engines. The shipbuilding industry in the UK launched a modern shipbuilding industry with the steel merchant ship equipped with steam engines. When steel ships were first built in the 1830s, there were not competitive due to higher shipbuilding and shipping fares than wooden sailing ships, but demand increased as immigration to the US increased since the mid-1800s, and the UK took the leadership in the global shipbuilding industry. The UK shipbuilding industry was highly competitive in terms of productivity, cost, performance, and quality of steel ships and was the highest performing shipbuilding nations for about 100 years from 1858 to 1955 (Patterson, 2019: 11-14). However, through the prolonged recession in the early 1900s, the shipbuilding industry was subject to restructuring, and at the same time, it failed to innovate due to severe labour unions. By the 1950s it has fallen behind in technological changes and global market competition, and handed over the leadership to Japan (Patterson, 2019: 29-31). There are various reasons why shipbuilding leadership has been moved to Japan, but the major reason was that the UK shipbuilders have failed to keep up with technological progress. For example, the UK shipbuilder's shipbuilding method was a rivet method that connect steel plates with rivets, but by the mid-1900s, the welding method became the main method of shipbuilding. In addition, after WWII, the global major energy source was converted from coal to oil, and the market for tankers transporting crude oil expanded. However, since the size of the UK's shipbuilding industry was unable to handle it, market competitiveness of the UK's shipbuilders gradually decreased (KDI, 2017).

While the UK was losing its competitiveness, Japan entered the shipbuilding industry with government policy support. After WWII, Japan implemented a planned shipbuilding policy in which the government supported shipping companies to build ships and repay them with operating returns to increase employment and develop the industry (Colton and Huntzinger, 2002). Japan began absorbing global ship demand while building large vessels, particularly maximising production quality and efficiency through block construction and welding methods. maintained the top position in global shipbuilding for 44 years, from 1956 to 1999 (KDI, 2017). However, due to the global shipbuilding recession caused by the oil shocks in the 1970s, Japan implemented restructuring of the shipbuilding industry. In addition, Japan's main products have gradually lost its competitiveness in the global market due to the demand for larger size of container ships and LNG carriers. It has been pointed out that Japan's production method also had its issues. As mentioned earlier, ships are constructed on a made-to-order basis, but Japan excessively pursued efficiency through standardisation and uniformity of ships. Hence, there were issues regarding the inability to respond to diverse demands (Woo, 2019). The development and decline of the shipbuilding industry in the UK and Japan had similar path. The

two countries achieved production efficiency with the latest processing methods and supplied products that meet the demand of the global ship market. Nevertheless, as demand for ships declined in the aftermath of global economic fluctuations, such as the Great Depression and the oil shocks, the government rationalised the shipbuilding industry, and at this time, new competitors with cutting-edge processing method participated in the market and handed over its leadership.

The rise of Korea's shipbuilding industry dates back to the export-led industrialisation strategy of the 1970s. As mentioned in the development path of the Korean shipbuilding industry, it existed since the Japanese colonial era in the 1930s⁸. However, it was primarily focus on domestic demand rather than export-oriented shipyard. Additionally, due to the limited domestic demand for ships, despite policy assistance, the shipbuilding industry could not grow significantly. Korea's ascent to the position of global leader in the shipbuilding industry began in the 2000s, while Japan, which had started rationalising its shipbuilding industry early, maintained its leadership until the 1990s. The factors which enabled Korea's shipbuilding industry to rise during this period can be attributed to cost competitiveness and facility investment (Woo and Lee, 2018). By employing the same block-welding method as Japan but with cheaper labour costs, Korea enjoyed a cost advantage over Japan. Additionally, continuous efforts in the enlargement of shipyards allowed Korea to build large containerships and VLCC. Particularly, during Korea's leadership in the shipbuilding, the global shipbuilding sector thrived, aligning with a boom in the shipping industry. This symbolic relationship further solidified Korea's position at the helm of the global shipbuilding industry.

The rise of the Korean shipbuilding industry can be observed in Figure 5.3. Looking at the changes in new shipbuilding orders and market share from the mid-1970s to 2021, it is evident that Korea's share of the global shipbuilding market started increasing in the 1990s and that it maintained its leadership in the 2000s. Viewed from a longer historic perspective, this rise can also be seen as further evidence of a complete shift of dominance in the global shipbuilding industry from Europe to Asia. Since the 2000s, European countries have very low percentage of new ships orderbooks, with their focus mainly being on the building of specialised vessels such as cruise liners. Currently, the global shipbuilding market is divided between Korea and China, with each country producing certain types of ships.

⁸ The first shipyard in Korea is Daehan Shipbuilding Company established in Busan in 1937 with the capital investment of Mitsubishi Heavy Industries and Oriental Colonization Company. After Korea's independent in 1945, it was re-launched as a public corporation under the Korean Shipbuilding Corporation Act in 1950. However, due to huge debt, it was on the verge of bankruptcy, and the government enacted a law to reorganise the company as the state-run shipbuilding company in 1962 (Woo, 2019).

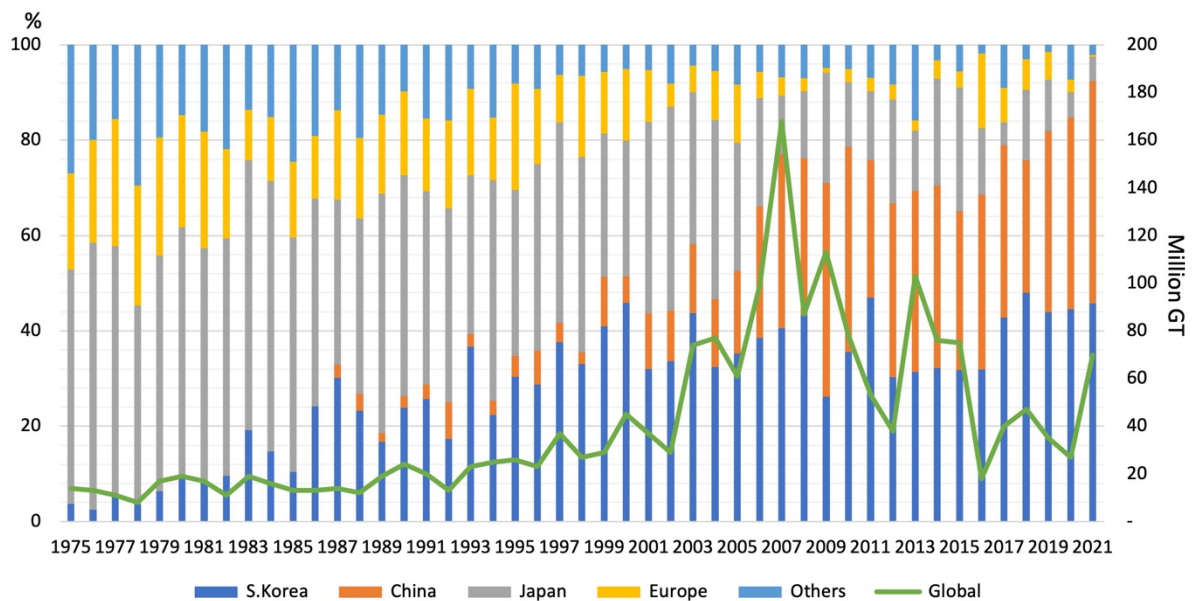


Figure 5.3 Global market share in new ships orderbook

Source: Shipbuilding Statistical Yearbook (1976-2022); Author's compilation and illustration.

5.2.4 Variegation the shipbuilding leadership in East Asian countries

Korea became the global leader in the shipbuilding industry in the 2000s. Soon after, China began to rise in the shipbuilding sector. China has sought to ascent the position of the new leader by increasing its market share from the mid-2000s onwards. Looking at the overall shipbuilding order volume, from the mid-2010s, the market share of Korea and China has become similar. Then, does this mean that China is emerging as the new leader in the shipbuilding industry, and Korea is stepping down from its leadership position after 20 years? When a country becomes an industrial leader and subsequently septs down from that position, it signifies changes in its performance relative to other countries. This, in turn, implies a reorganisation of global production systems within variegated capitalism framework, not just global competition between countries.

It is a clear that the volume of new ships orderbook in Chinese shipbuilders has surpassed the Korean shipbuilding companies. Figure 5.4 presents data on new ships orderbook as of 2022, with China securing 50% of the total ship orders; establishing itself as the dominant leader. Over the past decade, the market share of Korea and China has been around 30% range, but recent trends show an increase in China's orders. Nevertheless, interpreting this solely based on overall market share may lead to a different conclusion when considering the share of orders by vessel type. Figure 5.5 illustrates the market share of shipbuilding order by major types of vessels in 2022, and reveals that Korea and China have different mainstay vessel types. While China predominantly received orders for low-value-

added vessels such as tankers, bulk carriers and container ships, Korea primarily secured orders for high-value-added vessels such as VLCC, LPG and LNG carriers. This trend differs somewhat from the shift in leadership from the UK to Japan, and then from Japan to Korea. In the past, leadership changed due to the previously dominant leader being overtaken in terms of orders, whereas in the current scenario, Korean and Chinese firms are dividing the market between them.

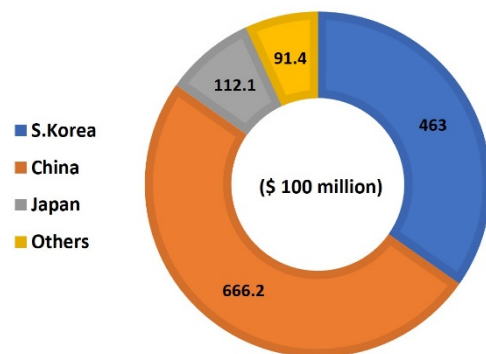


Figure 5.4 New ships orderbook in 2022
Source: Clarksons, Author's illustration.

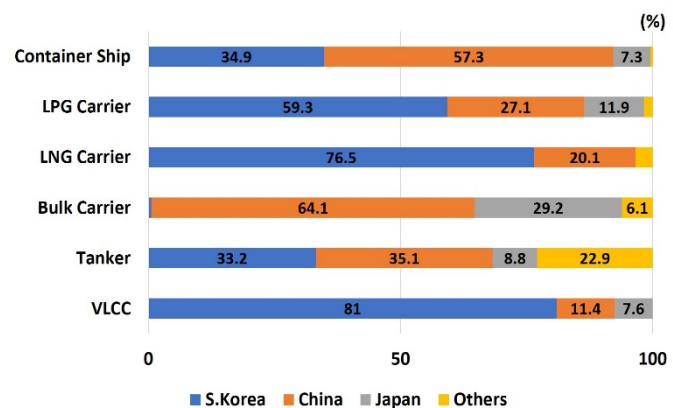


Figure 5.5 The market share of major types of vessels in 2022
Source: Clarksons, Author's illustration.

In the long-term, there is high probability that China will become the global leader of the shipbuilding industry. The reasons for this are, first, China is engaging in building various types of vessels based on high domestic demand, which increases the number of track records of Chinese ships and shipyards and enhances their quality reliability. As the reliability of ships and shipyards increases, there is a high likelihood that new orders will be directed toward Chinese shipyards, which have a higher price competitiveness than those in Korea. Second, China's cost competitiveness is higher than that of Korean shipyards due to lower labour costs and the country's ability to produce and supply shipbuilding steel at a lower cost than Korea (Lee and Park, 2013). Third, China has a major global shipping company, and it is the major customer of Chinese shipyards. As for Table 5.1, the bottom of the top shipping company in China is about four times larger than that of the top shipping company in Korea, and their fleet size differs by 6.5 times. Moreover, six out of the top ten global ports in terms of cargo volume are in China. This implies that China's shipping industry has the potential to grow even further, and may suggest a significant ripple effects from China's shipbuilding industry in. The potential for growth in Chinese shipbuilding-shipping industries is expected to drive a reorganisation of the global shipbuilding industries, leading to dynamic changes in Korean industrial policies.

Table 5.1 The potential of the Chinese shipbuilding industry through global shipping and port rankings

Global Shipping Company Rankings in 2023 (10,000 TEU)						Global Port Rankings in 2021 (10,000 TEU)		
	Shipping Company	Country	Bottom	%	Number of Fleets	Port	Country	Quantity of transport
1	MSC	Switzerland	520	19	772	Shanghai	China	4,703
2	Maersk	Denmark	416	15	686	Singapore	Singapore	3,747
3	CMA	France	350	13	627	Ningbo-Zhoushan	China	3,108
4	COSCO	China	293	11	463	Shenzhen	China	2,876
5	Hapag-Lloyd	Germany	186	7	257	Guangzhou	China	2,418
6	One	Singapore	169	6	218	Qingdao	China	2,370
7	Evergreen	Taiwan	167	6	213	Busan	S.Korea	2,271
8	HMM	S.Korea	79	3	72	Tianjin	China	2,026
9	Yang Ming	Taiwan	71	3	93	LA/LB	USA	2,006
10	Zim	Israel	59	2	135	Hong Kong	Hong Kong	1,780

Source: Alphaliner, cited in The Bank of Korea (2023), p.28; Author's compilation and modification.

Considering the rise of Chinese shipyards and their future growth potential, one can be contemplating the future potential role of the Korean government. Given that government-led industrial promotion or subsidy payments, as seen in the Korean developmental state, are subject to WTO sanctions, it might be challenging to implement such measures. However, to ensure that the Korean shipbuilding industry does not encounter crises as a leading industry, policies are being implemented in terms of shipbuilding manpower supply and technology development. Additionally, financial support for companies through state-owned banks is also being provided, ensuring efforts to maintain the international competitiveness of the shipbuilding industry in Korea (discussed further in Chapter 8).

5.3 The semiconductor industry in Korea

In Korea, there is a saying that refers to semiconductors as the 'rice of industry', implying that just as rice is a staple in Korean cuisine, semiconductors are indispensable in virtually every industry. As ICT technologies have evolved around the internet and mobile devices, semiconductors have become essential components. Particularly, the mobile revolution in the late 2000s and a result of Covid-19 in the early 2020s led to a sharp increase in demand for electronic products and the electrification of machinery; driving up the demand for semiconductors. This global demand surge also spurred a new

power competition in weaponizing semiconductors and their technology. Semiconductor trade disputes, primarily between the US and China, have had a significant impact, and have prompted strategic adjustments among major semiconductor-producing countries, including Korea. As a major semiconductor producer and exporter with a global market share of around 60% in memory chips, both the Korean state and producer firms are especially sensitive to such semiconductor dispute. This section provides an overview of the Korean semiconductor industry, including its growth path, industrial characteristics, and Korea's position amid US-China trade tensions.

5.3.1 The development path of the semiconductor industry in Korea

Samsung Electronics, one of global leaders of the semiconductor industry, began developing and producing semiconductor and technology in the early 1980s; however, Korea's semiconductor industry can be traced back to the 1960s. In the early 1960s, American semiconductor companies started to separate labour intensive assembly lines and to outsource to relatively low-wage countries like Korea. In 1965, Korea's first semiconductor production company was established through a joint investment with the American company Komy, and it focused on the assembly production of transistors and diodes. The following year, Fairchild Semiconductor Ltd. began assembling silicon transistors and diodes in Korea. In 1967, global semiconductor companies such as Motorola Inc. and IBM entered Korea (Kim *et al.*, 2015); solidifying Korea's position as a producer and supplier of electronics parts and components. Korea began its earnest development of semiconductor technology in the 1970s. The oil shocks and subsequent inflation and wage increases led to a decline in Korea's competitiveness for foreign investors and a reduction in investment. As a result, the focal point of Korea's electronics industry shifted from foreign to domestic companies. Additionally, in 1974, 'Korea Semiconductor Inc.' was established as the first semiconductor company responsible for all production processes from wafer fabrication to packaging (Kim *et al.*, 2015), making Korea a self-sufficient semiconductor producer. Thereafter, in 1976, the Electronics and Telecommunications Research Institute (ETRI) was established through public-private partnership to provide technical support and research for semiconductors and computers.

The rapid growth of the Korean semiconductor industry can be traced back to the 1980s. In 1981, the Ministry of Trade and Industry formulated a 'Detailed Plan for the Promotion of the Semiconductor Industry', which enabled Korean semiconductor companies to establish mass production systems and independent research and development capabilities. During this period, large corporations began to enter the semiconductor industry. Samsung Electronics, for instance, established its semiconductor research institute in 1982 and entered the semiconductor production

by acquiring the 'Korea Electronics Telecommunication Corporation'. Similarly, Hyundai established an electronic business department under Hyundai Heavy Industries in 1983 in order to develop the semiconductor industry. At the same time, the government formulated plans for joint development projects in ultra-high-density semiconductor technology in 1986 (Shin and Jang, 2006).

With the growth of major semiconductor companies and the support of the Korean developmental government, the Korean semiconductor industry began to lead in technological advancement. In the competitive landscape where early movers hold significant advantages (Shin and Jang, 2006), Korea emerged as the global leader in the memory chip sector. Since pioneering the development of 64MB DRAM in 1992, Korea has consistently maintained its position as the top global player in the memory chip field. This achievement can be attributed to a strategic focus on increased research and development to avoid technological lag in the memory chip sector, and has also been characterised by relatively short product lifecycles and lower barriers to entry for latecomers (Kim *et al.*, 2015). However, while the emphasis on memory chip-centred technological development led to quantitative expansion in the Korean semiconductor industry, it also resulted in slower growth in the non-memory chip and foundry sector. As of 2022, the global market share of memory chip stood at approximately 60%, while non-memory chip and foundry lagged behind at around 2.5% and 8%, respectively. To tackle this imbalance, the Korean government and the semiconductor companies are actively promoting investments in foundry and fabless companies to increase the market share of non-memory sector.

In terms of its geographical landscape, the semiconductor industry in Korea is prominently characterised by its concentration in the capital region. While semiconductor manufacturing facilities can be located anywhere given stable ground conditions and access to industrial water supply, the majority of semiconductor production in Korea occurs in the vicinity of the capital region, namely Seoul and Gyeonggi Province. Figure 5.6 illustrates the regional imbalance of semiconductor production in Korea, and illustrates that as of 2021, over 80% of semiconductor production took place in the capital region, with 15.8% occurring in Chungcheong region (in close proximity to the capital region). This concentration of the semiconductor industry in the capital region can be explained by two main factors. First, Samsung Electronics, the leading semiconductor company in Korea, has been operating production facilities in the capital region since the early stages of its business and has progressively expanded its production bases into surrounding areas. As a result, related companies have naturally clustered around these facilities. Second, both foundry and fabless companies tend to prefer locations near the capital region to secure top talent. This preference stems from the ongoing uneven development centred on and around the capital region, where human capital and resources

continue to be absorbed; intensifying these trend further. This (inevitable) geographical vacuum allowed the central government to be relatively free from unbalanced development issues, and provided a rationale for granting more privileges to specific industries, thereby hindering the evolution towards post-developmentalism. For instance, since 1994, the Korean government has implemented a total factory capacity control policy in the capital region to curb the excessive concentration of manufacturing industries. This policy has sought to restrain construction/expansion of new factories in the region. Nevertheless, the semiconductor industry has been treated as an exception, an exception that strengthened the trend of semiconductor production bases being located in the capital region. Examples of this exception include SK Hynix's Icheon plant constructed in 2020 and the semiconductor cluster under construction in Yongin, which results in the marginalisation of the role of the local governments (examine in Chapter 8).

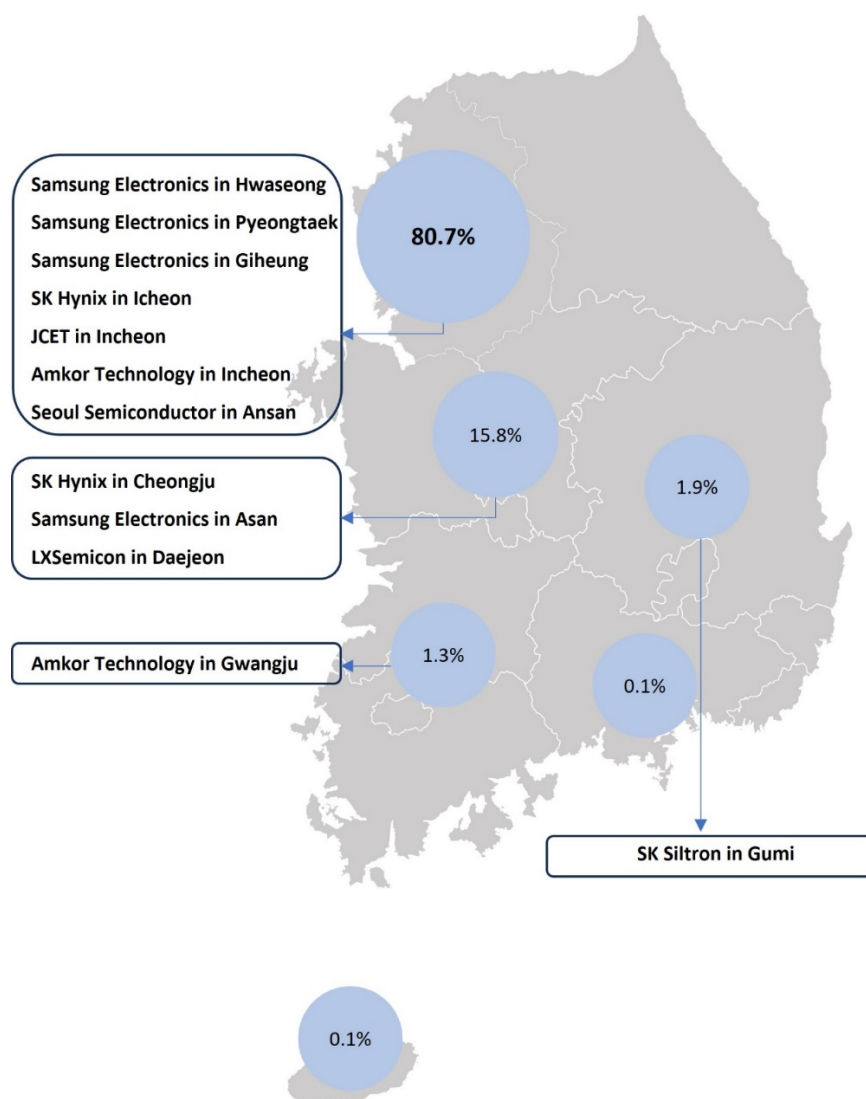


Figure 5.6 The geographical distribution of semiconductor production in 2021
Source: Author's own.

5.3.2 The characteristics of the semiconductor industry and global production networks

Semiconductors are essential parts for almost all industries, and their importance is growing especially with the development of information and communication technology (ICT). Semiconductors are divided into Integrated Circuit (IC) and discrete component, commonly referred to as chips means IC chips. The global semiconductor market is divided into memory semiconductors and system (non-memory) semiconductors. Memory chips are responsible for storage functions and include DRAM and NAND flash as the primary products. On the other hand, system semiconductors handle computing and inference functions, encompassing Central Processing Unit (CPU), Application Processor (AP), Image Sensors, AI Chips and other related products. In general, memory chips are important fields for production efficiency and process innovation for the cutting-edge products, and system semiconductors are important fields for design capabilities. Korean firms are leading semiconductor manufacturing and export and as shown in Table 5.2, Korea holds over 16% of the global market share in semiconductor industry and is specialised in the memory chip sector, whilst the US shows strength in non-memory semiconductors. Such imbalances have been pointed out as weaknesses in the current semiconductor trade tensions; Korea is presently working on advancing its non-memory sector, while the US is pushing for expansion of its memory semiconductor production lines.

Table 5.2 The top 5 semiconductor companies by market share as of 2022

Company	Country	Market Share (%)	Memory Semiconductor (\$ million)	Non-memory semiconductor (\$ million)
Samsung Electronics	S.Korea	10.6	52,633	11,190
Intel	USA	9.7	381	58,055
Qualcomm	USA	5.8	-	34,780
SK Hynix	S.Korea	5.6	32,615	890
Micron Technology	USA	4.5	26,833	16

Source: The Bank of Korea (2023), p.1

In terms of a characteristic of the semiconductor industry, chip production process is highly segmented, with specialised companies being involved in each process. As their geographical locations have become globalised and interconnected, the global production networks of semiconductor firms have been consolidated. Figure 5.7 shows the structure of the global semiconductor industry. The semiconductor manufacturing process is divided into three big stages of design, fabrication, and packaging and test. The semiconductor design is mainly carried out at fabless in advanced industrial

countries, and then the chip design is transferred to professional foundries that are consigned to mass production. The consignment mass production of chips is common in East Asian countries, and representative companies are TSMC in Taiwan and Samsung Electronics in Korea. The packaging and test process is in charge of chip assembly and testing and is also mainly in East Asian countries. This production process is mainly for a system semiconductor production process ordered from demand companies, and its outstanding feature is that it is vertically disintegrated and specialised and globalised in each process. There are also integrated device manufacturers (IDM) that have all of these processes. IDM is carried out in a vertically integrated in-house process from design to test and representative examples are Samsung Electronics and SK Hynix in Korea and Micron Technology, Inc. in the US. These companies mainly focus on the production of memory semiconductors. In addition to this, semiconductor equipment and materials are also important in the industry, and are mainly supplied by the US, Europe, and Japan. These countries and regions started the semiconductor industry ahead of other countries, and there have been some cases of their specialising in equipment and materials since semiconductor production functions have been moved to East Asia. It follows, that the global semiconductor industry is functionally and spatially fragmented, creating global production networks.

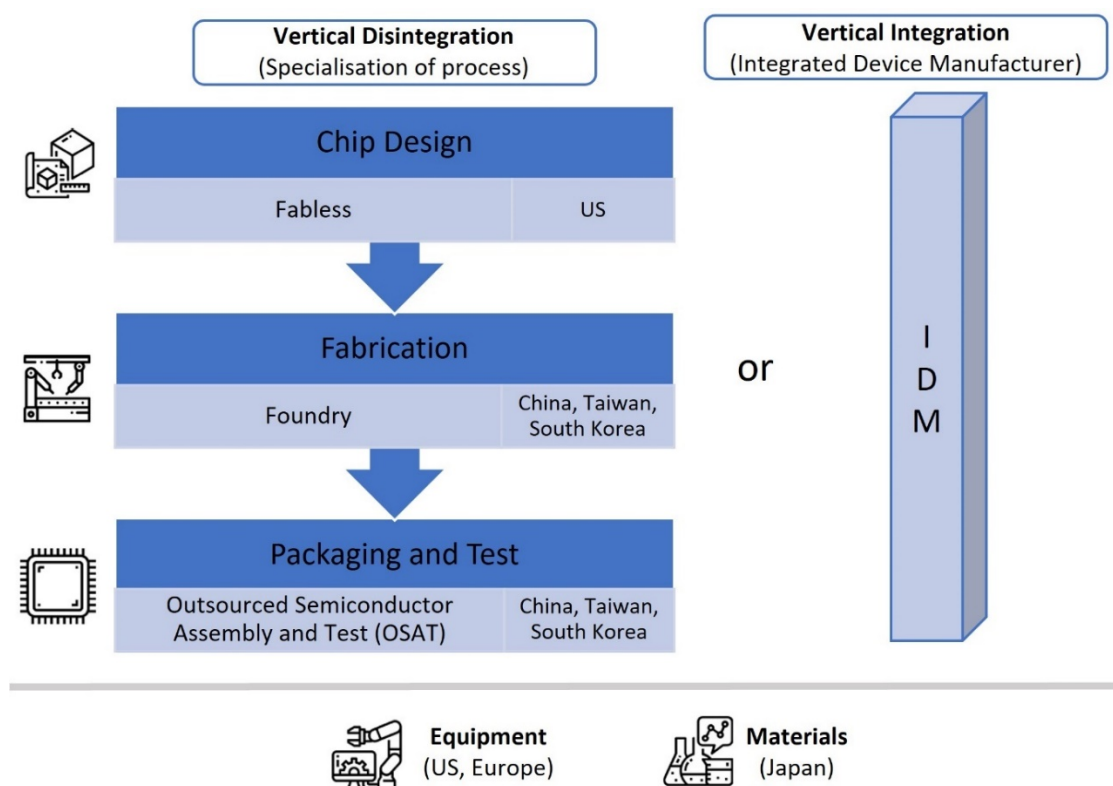


Figure 5.7 Vertical disintegration of global semiconductor industry and vertical integration of the Korean semiconductor industry
Source: Author's own.

The industrial fragmentation and global production networks were not inborn features of the semiconductor industry. In the early stages of the industry, IDM was a general business model. Chip design, fabrication, packaging, and testing tended to be carried out in one company and one country; however, with the international relocation of chip production facilities in the 1970s and the emergence of foundries in the 1980s, the semiconductor industry started to become vertically disintegrated. Existing IDMs in the advanced economies began to switch their business model to fabless, and chip production was left to professional foundry companies in Asian countries. As semiconductor design and production functions were separated, a more favourable environment was created for latecomers to enter the semiconductor industry. The latecomers were able to participate in the semiconductor industry while taking a relatively low-tech process, and they were able to expand the scope of their individual businesses by developing their own technologies and networking with other industries. In the case of Korea, although it was not an industrial country in the early days of semiconductors, its industrial structure was formed mainly around IDM. The reason for this is that the Korean semiconductor industry grew as an integral part of the electronics industry. Korea, which nurtured the electronics industry as an export-led industry, expanded its business-scope to electronic equipment and parts manufacturing, and in the process, the semiconductor industry developed through mass investment by the state and electronics companies. This unique aspect of developmentalism provided Korean firms with the global competitiveness that it exhibits today, and represents a legacy of state developmentalism (address in Chapter 7).

The global semiconductor industry has experienced exponential growth since the late 2010s. Figure 5.8 presents data on the structure of the global semiconductor market structure, and shows that the IC chips market size has doubled over the past decade. One notable point for Korea to consider is that the system semiconductor market within the semiconductor industry is significantly large. While Korea dominates the memory chip sector, it only accounts for about 30% of the overall semiconductor industry. With the remaining 70% being in the non-memory sector, Korea should more appropriately be referred to as a lead country in memory sector rather than a global semiconductor leader. To address this, Korea needs to focus on the increasingly important system semiconductors. Indeed, this issue has been raised since the early 2000s (ETNEWS, 24 November 2005), but it is paying attention again due to the global chip issue.

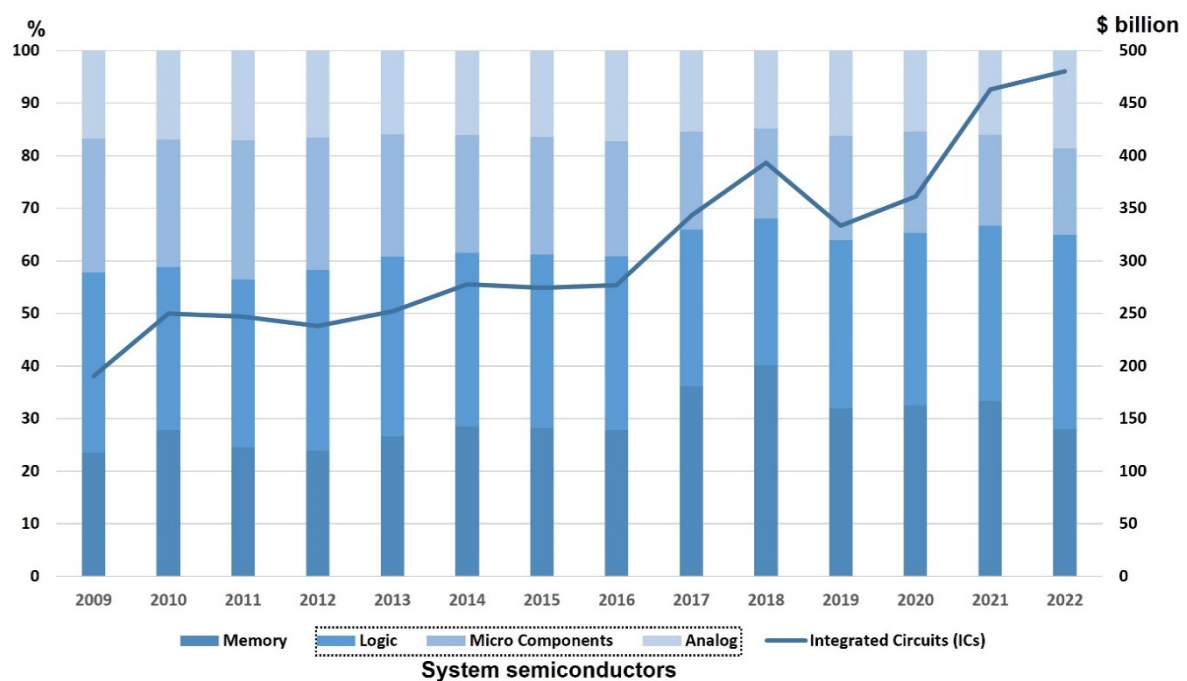


Figure 5.8 Semiconductors (ICs) market structure

Source: Statista (statista.com); Author's compilation and illustration.

5.3.3 The Chip War and a return to state developmentalism?

The chip war in the 2020s can be seen as being a competition between the US and China for semiconductor hegemony. Competition between the US and China is taking place not only with regard to semiconductors but also in the industry as a whole, but the semiconductor sector is at the centre of the conflict because they are tied into issues of national economic security. Semiconductors have developed into dual-use technologies in the military sector as well as in the private sector and are irrevocably intertwined with security-related industries such as aerospace and satellites. As a result, the competition for hegemony over the semiconductor industry should not be viewed simply as a competition for industrial leader, but as a geopolitical competition that includes national security and political matters. In addition, if there is a problem in any of the production networks due to the fragmentation of the process, the entire semiconductor production would be disrupted, and this aspect of the semiconductor industry has become one of the causes of the ongoing conflict.

The dispute over chips is not novel. In the past, there were also semiconductor-related friction between the US and Japan. Until the 1980s, the US-based firms were leaders in the global semiconductor industry. Japan fostered the memory chip sector through strong industrial policy support from the state as a developmental strategy and became a global leader in DRAM in the mid-

1980s. In response, the US took issue with the dumping of Japanese semiconductor companies, and from this the US-Japan Semiconductor Agreement was signed in 1986. As a result of the agreement, retaliatory tariffs, claims for damages, and patent lawsuits on Japanese electronics companies were made, and eventually, Japanese semiconductor manufacturing fell. A similar case has also occurred between Korea and the US when Korean chipmakers were asked for to be investigated by the US Commerce Department due to DRAM dumping charges in 1992. As a result, a 44.3% countervailing duty was imposed on SK Hynix semiconductor products (Kim, 2019). Whilst these the two cases seem to be grounded in trade protectionism of the US rather than geopolitical and national security issue. The more recent US-China semiconductor tensions cannot be viewed simply in this manner.

The competition for semiconductor dominance between the US and China is now more intense than ever. Unlike past cases involving Korea and Japan, where both countries complied with US demands and the situation was resolved, the current chip war has created geopolitical tensions between existing hegemonic power and emerging ones. According to The Economist (2018), the core of the US-China trade dispute revolves around the competition for technological supremacy, with semiconductors at its centre. China has designated semiconductors as a core industry and is driving industrial development, while the Trump administration considered regulations that went beyond sanctions on specific companies to prohibit transactions with Chinese companies across promising future advanced technologies (The Economist, 01 December 2018). This practice of the US can be seen as strengthening protectionist trade measures through the unilateral imposition of sanctions other countries without adhering to the WTO system. In particular, the Trump administration intensified containment against China, and promoted the American First policy; this led to the current chip war situation. Amidst the semiconductor-related tensions between the US and China, Korea's position as a semiconductor lead country once again become significant issue.

As the US strengthened its protectionist stance against China, semiconductors were used as a tool in trade negotiations; a situation that also affected the Korean semiconductor industry. For instance, in 2018, as part of its negotiation strategy amid its trade dispute with China, the US demanded as increase in imports of US-made chips; thereby displacing Korean chips imports (Financial Times, 26 March 2018). The tensions between the US and China have had a significant impact on the Korean semiconductor industry due to the fact that both countries are major trading partners for Korean chips. Figure 5.9 provides data on Korea's major semiconductor trading partners and export amounts as of 2022. More than half of Korean chip exports were to China, with the US accounting for about 10%. In this situation, Korea could not rely solely on either side; a situation akin to that which existed in the Cold War era. In addition to the issue of exports, issues related to the import of

semiconductor materials, components, and equipment are also intricately intertwined. For instance, Korea's dependency on China exceeds 80% for hydrogen fluoride, and its dependency on the US exceeds 90% for ion implanters (BOK, 2023). Due to the high dependency on specific materials and equipment from both China and the US, any friction between these two countries inevitably has negative impacts on the Korean semiconductor industry. With this complex semiconductor production networks, the Korean state needs to cooperate with both the US and China. It follows from this that while Korean companies are in global lead position in memory chip sector, the country nevertheless finds itself in an ambiguous position amid the geopolitical and geo-economic dynamics of neighbouring countries. As a consequence, Korea needs to readjust its industrial strategy so that it is not solely based on economic and industrial aspects but also considers the national political level. Seen in this way, it can be implied that the chip-war has reframed the role of the Korean state to the extent that former characteristics of state developmentalism have once again become important.

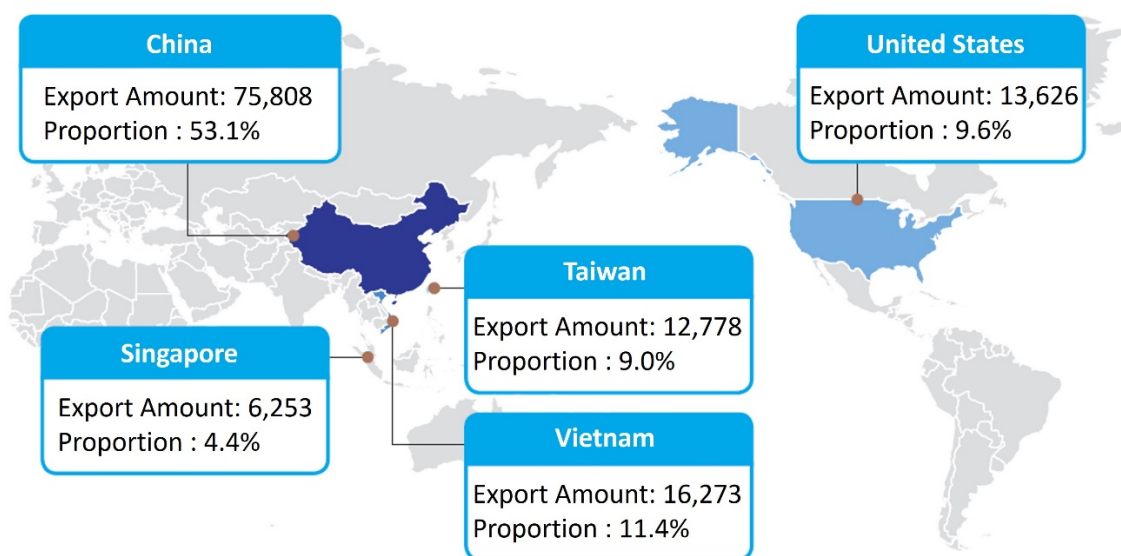


Figure 5.9 The major trading partners of the Korean semiconductor industry as of 2022 (million USD)

Source: The Bank of Korea (2023), p.3; Author's translation.

5.4 Conclusions

Ships and semiconductors are major exports items for Korea, and constitute a significant portion of the country's export economy. The Korean state has adopted an export-led industrial strategy from the past to the present, managed its major export items institutionally and policy-wise, and responded sensitively to changes in the industrial environment. An interesting point is that the two industries receiving attention from national policies have slightly different starting points. For instance, the shipbuilding industry has developed from the late 1960s and initially did so through the strategic

nurturing of the central government and continues to maintain its global leadership through various policy benefits. In contrast, the semiconductor industry has grown under corporate-led initiatives. While major semiconductor manufacturers in Korea have benefited from various advantages provided by the Korean developmental government, unlike the shipbuilding industry, the government did not directly foster a specific sector. Both industries have rapidly grown to become global leaders in their respective sectors, and both are national strategic industries.

Even in the present era that is often referred to as post-developmentalism, the interventionist role of the state in these two industries can still be readily observed. This once more reinforces the idea of there has been a dynamic evolution towards post-developmentalism rather than a complete transition to a neoliberal state within Korea. Given the country's relationships with major competing countries, the role of the state is pronounced and demanded. In response to the rapid rise of the Chinese shipbuilding industry since the shipbuilding crisis in the 2010s, the Korean government has implemented (un)official industrial crisis response programmes for major shipyards in order that they may compete with China and advance their competitiveness. It is formulating industrial strategies in consultation with companies to prevent the loss of global leadership to China in the long term. In terms of the semiconductor sector, and amid the chip war crystallising from the US-China trade tensions, Korea has positioned itself well regarding both exports and imports with the two major trading partners by elevating semiconductor issues to become a major national agenda. Furthermore, Korean central and local governments are constructing semiconductor industrial clusters to secure the competitiveness of the semiconductor industry. Thus, while the specific roles of the state in these two sectors may have changed, the routine of developing industries and ensuring smooth exports remains largely unchanged from state developmentalism.

In this way, the role of the state in industrial strategy is not fixed. The state acts both as a driving force behind industrial development and as a player directly participating in the global competitive system. In other words, the state's role is not determined by its inherent characteristics but rather by its ability to modify and adjust its strategy according to specific conjunctures and circumstances. Therefore, the industrial strategy of post-developmentalism should not be confined or limited to defining its characteristics, instead, it should focus on adjusting state industrial strategies within variegated capitalism, taking into account factors such as geopolitics and geo-economics.

Chapter 6. The changing role of the national state and national level industrialisation strategies

6.1 Introduction

The rapid economic growth and industrialisation of Korea are major research topics in comparative politics and development economics. The focus of existent research has tended to be on the national level economic systems, developmental political regimes, and economic management policies. The transformation of the Korean developmental state after the 1997 financial crisis followed a similar pattern. Viewing the financial crisis as a turning point for Korean state developmentalism, analysts have often characterised the changes in the economic system before and after the crisis as economic reforms, perceiving them as unilateral changes (see Chang, 1998; 2006). Scholars who study economies and political science have conducted that the Korean developmental state underwent a transition to a neoliberal state, following neoliberal prescriptions by supra national organisations. Thereafter, academic interest in the developmental state has waned, and discussion of the same has ceased to be active, suggesting that the Korean neoliberal state is the post-developmental state.

Critically scrutinising these research trends, those study points out two main issues. First, whether the 1997 financial crisis be referred as a knickpoint between state developmentalism and post-developmentalism? While the experience of the financial crisis brought about significant changes that justified the use of the term economic reforms (Baek, 2004), it is questionable whether this event marked the transition to post-developmentalism. Second, can Korean post-developmentalism be seen as a transformation from the developmental state to a neoliberal state? Many studies, including, for instance Chang (2006) and Doucette (2016), agree that Korean state developmentalism did not disappear abruptly but gradually transformed, and it remains debatable whether it has ultimately become a neoliberal state. In the two issues raised, the post-developmental state has been conceptualised as a means by which to critically evaluate the developmental state and offer alternative approaches. This study neither critically evaluates the developmental state nor attempts to conceptualise the post-developmental state as an alternative approach. The reason, as noted in Chapter 2, is that the evolution of state developmentalism does not appear linearly but manifested itself through various institutional co-evolutions, resulting in post-developmentalism. Therefore, it is problematic to conceptualise post-developmentalism as a concluded state developmental model after state developmentalism. This chapter addresses these two questions, looking at the national scale and

examining the changes in Korea's industrial strategies and foreign investment policies to understand the dynamic evolutionary process of the Korean developmental state presented in conceptual framework in Chapter 2.

6.2 Paradigm shift of the state-led industrial development policies?

A key characteristic of the Korean developmental state is its strategic industrialisation programme, which has shaped the parameters of the market. Through the industrial development programmes, Korea achieved economic growth by providing various incentives and regulatory measures that facilitated rapid industrial transition (Chang, 2006: 264). In the developmental state, industrial policy is pursued in order to create and sustain comparative advantage in specific industries, thereby addressed perceived weaknesses in the market and involving state intervention with deviation from market logic (Amsden, 1989; Wade, 1990). Such developmentalism goals emphasise the proactive role of governments in countries aspiring to catch up with advanced economies (Cho, 2023). In the Korean developmental state, government-led industrial development programmes were conducted strategically and selectively. In addition to this industrial nurturing programmes, Korea implemented industrial coordinate policies for less competitive industries as well as industries that needed more global competitiveness. The state responded agilely to industries that were sensitive to foreign economic conditions and played a significant role in national exports; practices that still continue today in the so-called post-developmentalism era.

Research on government-led industrialisation strategies in Korean economic development has tended to focus on the developmental state's industrial nurturing policies. At the same time, however, state autonomy and capability also emerged in the process of coordinating the industries, and this can also be understood within the developmental framework. This section elaborates on how the paradigm shift from industry nurturing policies to industrial coordinate policies in Korea's industrial development programmes evolved from state developmentalism to post-developmentalism. It does so, focusing on, the shipbuilding and semiconductor industries which, as noted, not only account for significant portions of Korea's exports, but have also been developed through various policy benefits that are sensitive to global economic conditions.

6.2.1 From industrial nurturing to coordinating strategies: The changing role of the state

In 1963, the Park leadership made a new plan that greatly changed the contents of the first five-year economic development plan. As per this changed plan, the basis of the national development plan

completely shifted to an outward and export priority way. Korea tried to increase its exports by manufacturing light industrial products using abundant and inexpensive labour costs in the 1960s. Despite nurturing export-oriented light industry, the trade balance was still in the red due to significant imports of capital goods. It was also difficult to keep the comparative advantage on the labour-intensive light industry due to rises in labour costs. Figure 6.1 presents the trade balance in Korea between 1956 to 1972; though exports gradually increased due to the EOI strategy in the early 1960s, the trade deficit increased from USD 360 million in 1956 to more than USD 1.2 billion in 1971. The deficit increased as industrialisation progressed. The central government needed policy movements to improve the trade balance and used this as a rationale for its export priority strategy. In addition to this, politically, Park's regime, which took power through a military coup in 1961, had to rely on economic development and export promotion as a rationale to justify the illegal seizing of the regime. Even in 1972, Park's administration enacted the 'Revitalising Reforms Constitution' (*Yusin Constitution*) for dictatorship, requiring a much stronger rationale to maintain its power (Yoon, 2006). For these reasons, Park's administration presented USD 10 billion in exports and USD 1,000 per capita income in 1980 as its vision, and, as a result, in 1973, the heavy and chemical industrialisation strategy for curbing imports and promoting export was declared as shown in the quotation which follows.

"Our country (Korea) has entered the era of heavy and chemical industries. From now on, the government will declare a policy to industrialise heavy and chemicals, which focuses on measures to nurture heavy and chemical industry".

(President Park Chung-hee, Speech on 12 March 1973; Author's translation)

The government's focus was solely on increasing exports, and the targeted industries were sectors that could also reduce imports of capital goods and increase exports. The target industries were steel, nonferrous metal, machinery, shipbuilding, electronics⁹, and the chemical industry; called six strategic industries. Then, how could the government just declare and practice this industrial development strategy?

⁹ The electronics industry is different from the other five target industries. The government included it in heavy and chemical industrialisation for the following reasons. (1) The electronics industry is a capital-saving industry that requires less investment than other industries to produce the same amount of value-added products. (2) The electronics industry is an energy-saving industry that consumes less energy resources. (3) Some parts of the electronics industry are labour-intensive and can create a large number of jobs. (4) The electronics industry is a technology-intensive industry and produces a great ripple effect on related industrial technologies (Heavy and Chemical Industrialisation Promotion Committee, 1973).

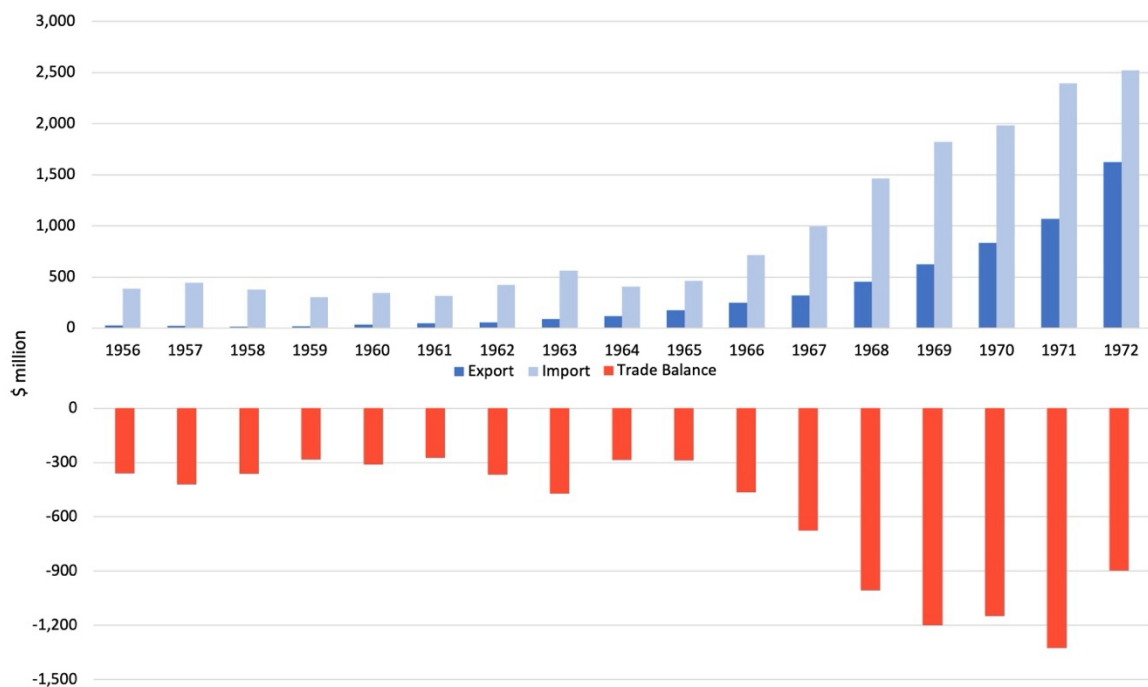


Figure 6.1 Trade Balance in Korea (1956-1972)

Source: Korea International Trade Association Statistics (stat.kita.net); Author's compilation and illustration.

The declaration of nurturing heavy and chemical sector was made through state autonomy and the capability of Korean state developmentalism. In general, and in order to shift the nation's major affairs and make special order on industries, a consensus between social forces such as the state, companies, and labour organisations is required. The developmental Korean government, however, was able to ignore this requirement or proceed the consensus quickly by the state power. In the context of policy promotion, the rapid translation of a national leader's 'declaration' into policy can serve as a major feature of the developmental state. This can also be referred as evidence that examining the evolution of state developmentalism through which the national leader's intent is reflected in policy in post-developmental era. Within Korea on 3 August 1972, '8.3 Emergency Measure'¹⁰ was taken to adjust corporate private loans and provide special financing to the companies

¹⁰ Measure concerning economic stability and growth issued by the president under the Constitution. The measure aimed to lay the foundation for sustainable growth. The detailed contents are as follows.

1. It is the adjustment of corporate private loans to reduce the burden on companies and improve their financial structure.
2. Financial institution issued KRW 200 billion in special financial bonds and acquire them to the Bank of Korea, and the funds raised here required to be used for long-term and low-rate loans for companies.
3. The government establishes various credit guarantee funds to facilitate loans by financial institutions to companies with weak collateral capabilities.
4. The government installs industrial rationalisation funds to led long-term low-interest funds and give tax privileges to companies that comply with the rationalisation standards.
5. For investments using domestic resources, the deduction rate for corporate tax or income tax will be raised from the current 6%to 10%.

participating in industrialisation. Large companies, which were highly dependent on external capital, could enjoy debt and interest reduction effects as a consequence of this measure. The government's freezing of private loans was an exceptional benefit that is difficult to explain by reference to market principles; that it actually happened an example of the state's autonomy and capability at the time (Haggard, 1990; Woo, 1992). Whether it was ISI or EOI, the developmental state was able to strategically shift its industrial development paradigm to achieve policy goals with its autonomy and capability (Amsden, 1989). That is how the president was able to 'declare' heavy and chemical industrialisation with poor socialised democratic policy-making processes. During this period, the Korean state played a 'demiurge' role (Evans, 1995) with regards to the implementation of national scale economic and industrial policies. Nevertheless, the mere presence or absence of such state autonomy and capability should not be used as the criterion by which distinguish between the existence of the developmental or a post-developmental state. Instead, it is crucial to understand how these attributes change and create the dynamics of evolution of state developmentalism.

The specific policy tools and practices to implement top-down style industrial policies were based on controlling of industrial resources. The ways in which the state utilised industrial resources were: first, the state directly acted as a producer of SOEs, and second, the state exercised direct control through institutional decisions related to the mobilisation and distribution of resources. The Korean state took the latter method to gain a hierarchical priority over companies using institutional roles and deployed financial resources to discipline the method to the firms (Amsden, 1989; Woo, 1991). In this way, the national champions became the strategic sub-partners of the state. Since the most significant thing for Park's leadership was to achieve the export goals, discipline was created and presented to the firms. For instance, (1) the government did not help all industrial sectors loosely, but intensively nurtured industries that were favourable to exports. (2) The government did not unconditionally help selected specialised industries but depended on the amount of the exports. (3) The government did fully support a company if the selected company exported properly. (4) The government granted commendations and medals when a company achieved export targets (Koo, 2010). The giving of benefits to individual firms by the central government was conditional and conjunctural. Though it was up to the firms to realise the nationally set goals and the firms needed to follow the state's directions. Crucially, because the firms could not afford the risks of investing in heavy and chemical industries without government support, the national champions had no choice but to

6. In order to restore financial flexibility, local taxes are abolished and determined in the annual budget. (National Archive of Korea, www.archives.go.kr/next/search/listSubjectDescription.do?id=006105&sitePage; Author's reorganisation and translation)

be subordinated to the state if they wanted to maintain their business during the early stage of heavy and chemical industrialisation. These government-dependent partnerships were embodied in national fiscal and financial policies.

From the 1980s, industrial development strategies began to change, with the government implementing industrial coordinating policies to maintain the sustainability or efficiency of existing industries. Through coordinating policies, non-competitive industries were phased out, new business entries were restricted, and coordination between existing companies was managed. While industrial coordinating policies conformed more to market logic, the government intervened and provided special privileges to certain industries if it deemed such strategic intervention to be necessary. In terms of external settings regarding this policy change, the most significant impact on the changes to industrial policy can be attributed to the Uruguay Round and the subsequent establishment of the World Trade Organisation. As a result of the UR, tariff and non-tariff barriers on manufactured goods were reduced which led to domestic manufacturing products competing seriously with foreign products. Additionally, the WTO greatly restricted industrial policy tools such as subsidies, and thereby put a brake on the developmental industrial nurturing programmes.

In the developmental state, industrial coordinating policies follow market conditions, whilst the state intervenes through protectionist trade policies, tax benefits, and financial support to create comparative advantage for specific sectors (Cho, 2023). This is how the Korean state sustained its influence over the chaebols in the name of creating or sustaining comparative advantage within the variegated system of capitalism. This policy change was consistent with the industrial nurturing policies of the developmental state in terms of the central government being deeply engaged with industrial development strategies. These changes can be observed through the Manufacturing Industrial Development Act¹¹ enacted in 1985. It sought to enhance industrial competitiveness by increasing private autonomy. The government sought to promote the rationalisation of the domestic industrial structure by transitioning from government-led industrial policies to private-sector leadership and abolishing various regulations that hindered market entry. The Act shifted the

¹¹ Industrial acts in Korea were initially crafted for individual industries. While general laws were introduced with the onset of economic development in the 1960s, such as the Industrial Standardisation Act in 1961, and the Science and Technology Promotion Act in 1967, specific laws for industries, like the Steel Industry Promotion Act and the Petrochemical Industry Promotion Act, were also enacted. Starting in the 1980s, the government initiated efforts to revise and coordinate individual promotion acts for specific industries and sectors. In 1985, the Manufacturing Industrial Development Act was enacted, abolishing the 7 promotion acts for industries including steel, non-ferrous metals, shipbuilding, machinery, electronics, petrochemical, and textiles. This abolishing aimed to conduct industrial rationalisation, establish new industrial development funds, and introduce regulations for industrial development councils.

traditional sector-focused government support approach to a function-oriented one, and through so doing prioritised support for attracting promising industries and rationalising productivity improvement initiatives for declining industries. The specific practices incorporated by this act were as follows. First, there was a shift in the method of industrial support. With the abolishing of individual industry promotion acts, the support mechanism shifted from industry-specific to function-specific. The previous support mechanism involved direct government incentives in terms of tax cuts, and financial benefits, often leading to market distortions. Second, there was an increase in the role of the private sector in industries. Previously, government intervention encompassed almost all aspects of industry support whereas the new act aimed to delegate these responsibilities to the private sector. This shift was motivated by recognition of the fact that the concentration of investment in specific sectors and companies had led to unbalanced industrial development, which, in turn, had resulted in international competitive weakness. Third, there was a rationalisation of declining industries and protection of promising industries. Adjustments for globally declining industries and problematic companies were made in response to changes in comparative advantages, and sought to minimise the impact of industrial decline whilst encouraging sectoral transition to promising industries.

The significance of the policy change extended beyond merely increasing the role of the private sector and rationalising industrial decline. It signified a transition from a strong industrial strategy to a soft one by abolishing specific legislation that was aimed at certain sectors. According to Chang (1994), the industrial policies in the 1970s were characterised by the nurturing of specific industries and companies to achieve results perceived as efficient. This was a selective industrial policy; however, rather than nurturing industries through such selective policies, a need for management of those industries that had already achieved a certain level of growth arose, and there was a need to coordinate their development through alternative means of intervention. This indicates a qualitative change in the state's developmentalist approach; the regulatory method may have changed but the philosophy remained. In terms of the manner of the state's intervention, and despite emphasising the role of the private sector, there was still a desire for the government to play a certain developmentalist role. According to the quoted news article below about the enactment of the new industrial act below, it suggests that reducing the role of the government was merely an illusion and what was demanded was a change in the means of intervention in a way that Korea can develop. In other words, there was a public opinion that even though the industrial act may change, the developmental role of the government should be maintained.

“...; however, claiming that these changes in industrial acts reduce the government’s influence is nothing more than a misconception. Rather than diminishing (government) influence, exercising influence in the most desirable manner and direction would be a more realistic response. Therefore, while the enactment of the Manufacturing Industrial Development Act is commendable, it is imperative that the government first clearly delineate its specific industrial policies, which shed light on both the present and future of our (the Korean) industries”.

(Maeil Business Newspaper, 13 September 1985; Author’s translation)

When scrutinising the changes to Korea’s major industrial policies, it is evident that there were market-oriented and neoliberal movements in response to the launch of the WTO and the needed to enhance international industrial competitiveness. In terms of the execution of the policies, doubts can be raised as to whether the paradigm of industrial development policy in Korea has truly shifted to follow global trends, given that the role, autonomy and capabilities of the state remain. In other words, while the acts and laws may have changed, it is suggested that scepticism remains with regard to the role of the state and the mindset of the populace still leans toward the developmental approach. This suggestion also highlights the idea of the developmental state having evolved solely through policy changes. Rather than interpreting the Korean state developmentalism as having transitioned solely towards a neoliberal direction based on a shift from individual industrial nurturing policies to comprehensive industrial development policies, consideration of underlying factors reveals that the developmentalist practices still persists. This path dependency of state developmentalism, combined with geographical-historical conjuncture and contexts, has dynamically evolved into post-developmentalism in Korea.

6.2.2 The shipbuilding industrial policies as a strategic industry

The Korean shipbuilding industry began to grow as a result of government-led developmentalist nurturing policies. At that time, major conglomerates were reluctant to develop the shipbuilding industry, as levels of initial capital investment were too large and there was no guarantee of success. However, Park’s leadership ordered that the shipbuilding industry had to be promoted. This government-led shipbuilding nurturing plan was accompanied by detailed plans. For example, according to the Heavy and Chemical Industrialisation Promotion Committee policy document in 1973, the shipbuilding sector was granted KRW 150 billion (about USD 376 million by fixed exchange rates in 1973) to increase shipbuilding production and exports. The specific target levels for production and exports are shown in Table 6.1; the annual shipbuilding capacity targeted from 0.9 million G/T in 1973 to 4.5 million G/T in 1980. In addition, the EPB approved the introduction of new equipment only for

acquiring foreign currency and even ordered not to import overseas equipment if domestic supply was possible (EPB, 1973).

Table 6.1 Shipbuilding and export planning

	1973	1974	1975	1976	1977	1978	1979	1980
Total (10 thousand G/T)	9.55	46.4	82.0	131.45	190.0	240.0	320.0	450.0
Export (10 thousand G/T)	5.35	34.0	50.0	100.0	150.0	200.0	280.0	400.0
Domestic (10 thousand G/T)	4.2	12.3	32.0	31.45	40.0	40.0	40.0	50.0
Export share (%)	56	73.3	61	76	79	83.3	87.5	89

Source: Adopted from Heavy and Chemical Industrialisation Promotion Committee (1973), p.147.

The direction of shipbuilding nurturing policies shifted during the 1980s. The export-driven heavy and chemical industrialisation led to a deepening lack of balance between firms of different sizes. In addition, intense competition between companies over production size and performance to secure nearly preferential state support resulted in problems of redundant overinvestment (Lee and Park, 2013: 47). Alongside the abolition of the selective industrial policies and the enactment of the Manufacturing Industrial Development Act, the government's selective benefits for the shipbuilding industry became increasingly challenging to sustain. Consequently, there was an expansion of industry autonomy which led to its transformation into a privately led sector that was also more competitive. Despite this, and in the aftermath of the oil shocks in the 1970s, the shipbuilding industry faced prolonged stagnation by the 1980s. This, in turn, prompted government intervention with regard to those specific shipyards which failed to achieve operational stability. This intervention took the form of rationalisation measures, with the government demanding mergers and acquisitions of companies and asset sales for companies undergoing rationalisation. In turn, these companies received benefits such as loan repayment deferments from the IBK and new loans. In tandem with the rationalisation of underperforming companies, the central government conducted the Big Deal¹² practice which involved the coordinating and swapping of duplicate businesses between companies to enhance corporate efficiency. The practice, which was extensively pursued after the financial crisis, also indirectly affected the shipbuilding industry. Large shipyards operated under the name of heavy industries company came to oversee various businesses beyond their core-focus of shipbuilding, including making power generation facilities, ship engines and railway vehicles. In other words, they

¹² The Big Deal refers to business coordination that seeks to resolve duplication and excess investment. The big deal also refers to business swapping between conglomerates, where overlapping businesses among the large companies are streamlined through specialisation in specific sectors. This concentration focuses on core sectors to enhance competitiveness, and ultimately seeks to improve global competitiveness (Cho, 2023).

were involved in (un)related sectors in addition to shipbuilding, at the same time. To address overlapping investment in these industries and promote industrial specialisation among companies, the government initiated the big deal programme.

After the big deal practice, industrial coordinating policies for the shipbuilding sector were finalised, and the government began to use indirect interventionist methods. Direct support, rendered impossible due to WTO regulations, were replaced by national support for fundamental technology research and development across various industries. In particular, since the 2000s when the Korean shipbuilders assumed global market leadership, concerns over trade disputes related to shipbuilding have escalated. At the same time, the need to advance and differentiate shipbuilding technology and products has made it difficult for the central government to be directly involved in the sector. For example, the most recent shipbuilding strategy involves technological innovation related to global competition with Chinese shipbuilders, as well as institutional support for environmentally friendly ship production in line with the global green transition. According to 2023 government report, a budget of KRW 2.8 trillion has been allocated for innovation in building methods that will lead the global market through carbon reduction and secure global competitive advantage (The Government of Korea, 2023). While the green transition is addressed responding promptly to the global environmental issues affecting all sectors, the ultimate goal of using the green transition agenda in the shipbuilding sector is to continue to sustain its role as a global leader in the sector. According to an industry insider who was interviewed,

“The Korean shipbuilding industry is now too mature to replicate the growth seen in the past. Therefore, it must maintain its global leadership position through diversification of vessel types and high value-added shipbuilding. The central government is also investing heavily in eco-friendly ships and shipbuilding materials industries. Ultimately, the goal is to remain competitive in the face of new shipbuilding orders from China and to be mindful of Japan’s reinvestment for building high-tech ships”.

(Interview with a researcher at the KOSHIPA, 20 May 2022; Author’s translation)

The explicit objective of the central government is to maintain the industry’s position as a strategic industry by not losing global competitiveness in the same manner as the policy goals of the 2000s. This indirect government support approach naturally expanded the role of the private sector, and direct nurturing and regulatory intervention policies in shipbuilding became less prominent; however, the interventional role emerged to address specific issues to tackle with global scalar impacts.

The shift in strategy for the Korean shipbuilding industry within the national level context was

quite evident. Following the discontinuation of the selective industrial nurturing policies in the 1980s, the government adjusted its strategy towards industrial restructuring policies. Consequently, government intervention in the shipbuilding sector took place as a part of the government's overall industrial development policies rather than as part of the government's targeting strategy. In addition, with the spread of the WTO regime, granting direct benefits to industries became increasingly challenging, and this led the government to adopt indirect methods to maintain global industrial competitiveness. Whilst the developmental industrial promotion policies have largely faded over time, elements of government intervention persist in different forms. This, in turn, makes it difficult to assert that there has been a complete paradigm shift towards corporate-led or market-led shipbuilding industrial development strategies since the 1990s.

6.2.3 The semiconductor industrial policies as a strategic industry

Like the shipbuilding industry, Korea's semiconductor industry has been subjected to state-led policy decisions and transitions. During the phase when the state actively nurtured industries, it did not solely target semiconductor production but established and implemented policies to foster the electronics industry. In the 1960s, with the ultimate goal of expanding exports, the Korean developmental state established various strategies for nurturing the electronics industry. For example, in 1969, the enactment of the Electronics Industry Promotion Act and the Electronics Industry Export Promotion Roundtable helped to assess the reality of the Korean electronics industry and explore specific nurturing plans (Park, 2021: 39-41). Subsequently, in the 1970s, and as part of the heavy and chemical industry nurturing programme, the electronics industry was designated one of the six strategic industries. The nurturing of the electronics industry prioritised export. Until the early 1960s, there was a lack of a dedicated government department for electronics, which reflecting the minimal recognition of the industry; however, once it was designated as a major export industry, it began to receive direct benefits from the state. Specifically, under the individual industrial promotion acts, financial and tax support were provided, and loans were made available through the enactment of the National Investment Fund Law which supported the Electronics Industry Promotion Fund for investment in the industry. This support was limited to companies located in the Gumi Electronics Industrial Complex, and was based on the Electronics Industry Promotion Act (Kim, 1998); indicating the government's significant recognition of the importance of investing in specific sectors and regions. In addition to this, in 1977, the establishment of the Korean Electronic Telecommunications as the exclusive manufacturer of electronic switches reflected the state's direct involvement and desire to nurture the electronics industry through a SOE.

The Korean electronics industry, like the shipbuilding sector, was given a specific target; to achieve USD 10 billion in exports in 1980. According to Table 6.2, the goal was set through the ‘Long-term development plan of the electronics industry’ to export USD 2.5 billion in 1980. The goal was presented in high detail as well, such as the export ratio by region and the production ratio by item. In addition, the MCI tried to increase export competitiveness as well as domestic consumption through lowering the price of electronic products by 20~30% by lowering the commodity tax rates of some home appliances such as TVs, fridges and air conditioners. A notable point here is that pure foreign capital investment for the Korean electronics industry accounted only for 10%. This is important to note because it suggests that the Korean state preferred to use joint investments to control the dominance of foreign capital over the domestic electronics industry and companies. It indicates the strong foreign control exerted by the state.

Table 6.2 The Korean electronics industry target model in 1980

Production and Export targets	USD 31 billion, 78% for export
Export target by region	Total USD 25 billion, (USA 35%, Japan 30%, Western 15%, Southeast Asia 5%, Others 15%)
Manufactured goods	Device:Parts = 66:34
New product development	4 for Civilian use, 6 for Industrial use
Development of Electronic components and raw materials	55 electronic components, 10 electronic materials, 9 related industrial products
The ratio of domestic and foreign investment	Domestic:Joints:Foreigners = 40:50:10

Source: Adopted from Ministry of Commerce and Industry, 1973, p.1; Author’s modification.

During this period, the state autonomy of the Korean developmental state in electronics industry was quite extensive. This can be assessed by the government’s active policy decisions regarding the electronics industry, but more specifically, the developmental state of Korea had established a clear goal and the institutional framework and authority to achieve it. For example, in order to implement the Electronics Industry Promotion Act and the designation as an export strategy industry, the government gathered related companies to collect information and established specific policies and goals for the electronics industry. The Korean government used its capability to collect the necessary information for policymaking by just mobilising private companies’ knowledge. At the same time, it was relatively easy to utilise the state autonomy to establish and implement policies aligned with national strategy because private sectors in the electronics industry at the time was very small and there was limited bargaining power to raise their own voice. At the time of the enactment

of the Electronics Industry Promotion Act, there were only 26 companies (all of which were small-scale electronics parts assembly companies) involved in the roundtable discussions (Park, 2021: 39). These companies did not form their own interest group to negotiate with the government; rather, the government gathered them to collect their opinions and data. The absence of interest groups related to the electronics industry allowed the government to implement the acts and laws with unembedded autonomy.

The emergence of policies related to semiconductor production began in the mid-1970s. After deciding to expand investment in research and development in the electronics industry, particularly in semiconductor and computer, the government began to lead technological advancement in the industry (Wade, 1990: 313). The government instructed the Korea Advanced Institute of Science and Technology (KAIST) to prioritise semiconductor technology development as a top project. Additionally, it provided financial support to semiconductor manufacturing companies, and expanded financial benefits such as bank credit funds and tax incentives for this purpose as well as matching funds (Kim, 1998). Even after the shift in focus to the semiconductor sector, the role of the national state appeared largely unchanged. The government established the Electronics Industry Promotion Association to facilitate a collaborative framework that involved public-private-research sectors in the long-term industrial promotion plan. It set a policy for component and material development, and sought to secure domestic component supply rate of 70% by 1991 (Kim, 1998), and provided institutional support to relevant companies in a manner similar to previous noted approaches. During this period, while promoting the globalisation of industrial policies in preparation for Korea's accession to the OECD and the rise of WTO system, the semiconductor industry remained an exception. The Korean government showed clear policy intention by setting the promotion of the semiconductor industry as one of its national goals and by taking a keen interest in its development. Additionally, the government almost monopolised technical and industrial information through national research institutes and the SOE in the electronics and telecommunications sectors; demonstrating an exceptional ability to advance industry beyond the private sector. Nevertheless, unlike during the earlier phase of electronics industry nurturing period, the Korean state led an expansion in private sector participation and acted as a mediator between public-private-research bodies; an approach that indicates some qualitative changes to its role.

There was a significant reduction of the role of the state and a qualitative change in state involvement after Korea became the global-lead country in the memory chip sector in the 2000s. With large corporations in the semiconductor sector surpassing the state's capabilities, policy interventions diminished. Since the late 2010s, however, and as a consequence of global semiconductor issues,

there has been renewed government intervention. According to an unpublished government report from 2023, the state plans to concentrate management on 4 sectors, including semiconductors, and to provide institutional and financial support while transferring those industries to specific regions to create industrial hubs. This approach echoes the heavy and chemical development programme of the 1970s; suggesting a striking similarity in the state's industrial nurturing and spatial strategies. While the industries being fostered may differ, the government's intervention methods remain largely unchanged, and suggest a regression to the past rather than a paradigm shift in developmental industrial development policy.

6.3 The dynamics of introducing foreign capital into the Korean developmental state

In the early stages of the Korean developmental state, industrial capital and resources were virtually non-existent; necessitating the country's inevitable reliance on foreign capital. The initial introduction of foreign capital occurred in a closed manner, with overseas loans being preferred over inward FDI. The reason for this preference was that while inward FDI offered advantages in technology transfer, there were concerns pertaining to foreign capital dominance over domestic industries and companies, and how this could make it difficult to control domestic capital (Park 2018; 2021). This closed foreign capital introduction strategy underwent a significant transformation in the late 1990s following the financial crisis, and led to the liberalisation of inward FDI and even the policies to promote it. The approach to FDI, however, was not uniform across all industries. Industries requiring protection and nurturing were less receptive to inward FDI, while sectors requiring technology transfer showed active engagement from the early stages of development. This section elaborates upon the dynamics of introducing foreign capital in the Korean developmental state and examines how its evolution aligned with the evolution to post-developmentalism.

6.3.1 Changes of the Korean inward FDI policy

Inward FDI in Korea was allowed from 1962, with the US company Chemtax initially investing USD 579,000 in Korea Nylon's filament nylon yarn business (KDI, 2011). However, the government favoured a growth strategy that reliant on borrowing over FDI, and maintained restrictions on investment of foreigners until the early 1980s. During the developmental era, Korea guided by such FDI principles, fundamentally preferred foreign loan and technology licensing over FDI. Table 6.3 shows the composition ratio of foreign capital from 1962 to 1980, a period that has often been characterised as one of state developmentalism. It is evident that the Korea state favoured foreign loan over FDI. This

preference can be attributed partly to the limited inflow of foreign investment due to the unstable domestic situation, but also reflected Korea's stringent supervision and regulation of FDI to promote and protect domestic industries. Even when permitting FDI, it encouraged domestic ownership (Lall, 1996: 23). According to Jin (2003), the ownership structure of FDI in Korea during the same period reflected the country's efforts to restrict FDI to protect domestic industries. For instance, only about 26% of FDI was owned either entirely or predominantly by foreigners, with Korean companies holding 27% in joint ventures and foreigners holding minority stakes within 47%. This distribution indicates that regulatory instrument sought to prevent foreigners from exercising majority control. In practice, situations where foreigners held majority stakes were limited to Free Trade Zones and advanced industries. One point to note is that while FDI in advanced industries was exempt from restrictions of foreign ownership, the Korean government preferred technology licensing over investment. This preference can be seen as a strategy of the developmental government to enhance technological capabilities, and the developmental government encouraged joint venture with Korean companies and minority foreign ownership, prioritising technology licensing over FDI, because the former was seen to have a greater potential for technology transfer. The government meticulously reviewed and approved foreign investment on a case-by-case basis according to Korea's long-term growth strategies. The Korean developmental government strengthened the legitimacy of bureaucratic management and regulation of FDI to efficiently align foreign investment with national interests.

Table 6.3 The composition ratio of introduction of foreign capital in Korea (% , average ratio every 5 years)

	Foreign Loans	Inward FDI	Total
1961-1965	86.0	14.0	100
1966-1970	96.0	4.0	100
1971-1975	90.0	10.0	100
1976-1980	96.0	4.0	100

Source: Adopted from Jin (2003), p.82.

Under the Korean developmental state, FDI policy encompassed both regulation and management. Specifically, a dual policy framework was adopted, wherein FDI in labour-intensive sectors with comparative advantages was strictly regulated, while investment in technology-intensive sectors was actively encouraged to enhance domestic firm's technological capabilities. The important point here is that regulation and management were not achieved through transparent legal operations. According to Jin (2003), there was a gap between the cultured laws and the actual practices of the government, with the judgements of state operators and relevant ministries

prioritised over the law. For example, the Foreign Capital Introduction Act¹³ introduced in 1966, included aspects of liberalism such as the protection of intellectual property rights, guarantees of remittance of investment profits to the home country, investment protection agreements, the prevention of double taxation, and tax reductions and exemptions. However, these aspects were not effectively implemented because of the arbitrary interpretation of the law by the elite bureaucrats who were armed with a developmental mindset. These developmentalist aspects served as a kind of barrier to entry for foreign investment and resulted in the low rate of inward FDI mentioned.

In the 1980s, Korea shifted its stance regarding inward FDI; a significant transition. In 1984, the government moved from a listing permitted (positive) system to a listing restricted or prohibited (negative) system for foreign investment, thereby expanding the scope of sectors open to foreign capital. Additionally, the 50% cap on foreign investment was abolished (KDI, 2011). From the 1990s onwards, a reporting system for inward FDI was introduced which allowed investment in most sectors with only a notification requirement, except for certain restricted industries. Alongside these changes, the existing Foreign Capital Introduction Act was revised into the Foreign Investment Promotion Act to align the level of liberalisation for foreign investment with global standards. This trend accelerated even more after the financial crisis, and led to maximal liberalisation of inward FDI. The foreign investment policy shifted towards providing investment incentives rather than restricting investment, with the enactment of the Foreign Investment Promotion Act. For instance, companies investing in Korea received tax incentives and financial support. Moreover, it included measures to strengthen national support for local government to attract foreign investment activities. In addition to this, in 2003, Incheon, Busan and Gwangyang were designated as Korean Free Economic Zones (KFEZ),

¹³ The Foreign Capital Introduction Act, enacted in 1966, was a law aimed at revitalising foreign capital into the domestic economy. Since adopting the EOI strategy, Korea has relied on foreign capital for capital acquisition. Initially introduced in the form of public-sector loans until the early 1960s, foreign capital transitioned to a private-sector role as the character changed to that of commercial loans. From 1963 onwards, the private sector overwhelmingly dominated the formation of total domestic fixed capital, and with the mass introduction of foreign commercial officials, the burden of repayment increased. This led to the enactment of this law to promote inward FDI. The main provisions include:

1. Remittance of dividends.
2. Recovery of investment funds.
3. Restrictions on disposal of foreign capital.
4. Guarantee of foreign investor property.
5. Tax reductions and exemptions.
6. Treatment of domestic nationals.

The EPB deliberates and decides on foreign capital introduction examinations, determining investments accordingly.

(Korean Law Information Centre under Ministry of Government legislation, Accessed 08 August 2023, <https://www.law.go.kr/IsEfInfoP.do?IsiSeq=2879#>; Author's reorganisation and translation).

providing various institutional exceptions not only attract foreign investment but also to enable foreign residents to settle. The KFEZ was further expanded to 10 areas when additional areas were designated in 2008, 2013, 2020, a policy initiative which create an environment conducive to attracting foreign investment across and within multiple regions.

As a result of this shift in Korea's inward FDI policies, the amount of investment increased dramatically. Figure 6.2 depicts data on inward FDI, and shows that there was a gradual increase that started in the 1980s when foreign capital introduction began, and that this surged explosively from the late 1990s onwards. This directly reflects directly how Korea's policies towards inward FDI changed and further underlines just Korea had previously restricted foreign capital investment. This transition indicates a significant departure from the developmentalist capital introduction strategy that was aimed at protecting domestic industries and companies, and demonstrated a marked shift towards neoliberal way in investment. Nevertheless, this shift did not signify the complete dissolution of the developmental foreign capital introduction method, but rather indicated a preference for a different source of growth and also evidences that Korean firms were becoming strong enough to manage foreign capital on their own without central government's regulatory roles.

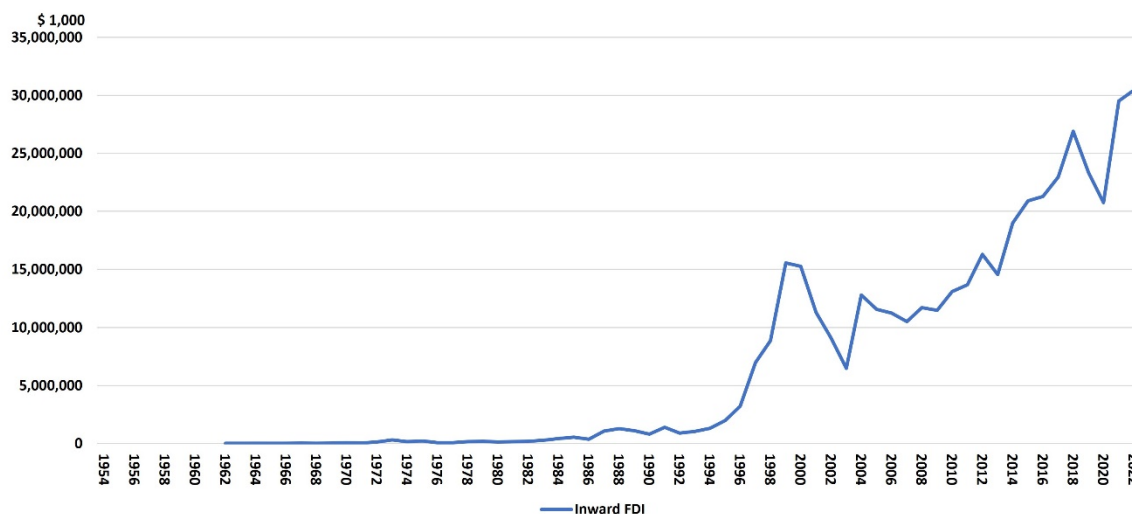


Figure 6.2 Changes of inward FDI in Korea

Source: The Bank of Korea; Author's compilation and illustration.

6.3.2 Constructing shipyards and building ships with foreign loans

There is a well-known story that always comes up when discussing the development of the Korea's shipbuilding industry. Chung Ju-yung, a founder of Hyundai, was instructed by President Park Chung-hee to build a large-scale shipyard. In 1971, Chung negotiated a loan with Barclays Bank in London. However, Barclays rejected the request, and stated that the bank could not trust Hyundai's capabilities.

Subsequently, he met with a chairman of A&P-Appledore, explained Hyundai's plan for the new shipyard, and requested a letter of recommendation; he was again refused. Determined, Chung later visited the chairman of A&P-Appledore again, showing him a KRW 500 bill depicting *Geobukseon* (an ironclad battleship built in the 1500s) and claimed, "Korea built ironclad ships 300 years ahead Britain." This bold claim eventually persuaded the chairman to provide a letter of recommendation. With this letter, Hyundai secured its first ship order from Greece and used the order contract as collateral to obtain loans from Barclays Bank. This anecdote illustrates Chung's leadership and entrepreneurial spirit and also highlights the challenges Korea faced in developing the shipbuilding industry at a time when it had virtually no resources or capital. The question arises as to why Chung had to go to the UK to secure construction funds despite receiving the directive to build a shipyard from the state, and what role the government played in this context.

Within the early stage of the development of Korea's shipbuilding industry, foreign loans were indispensable. The Korea Shipbuilding Corporation signed a loan contract with Japanese and the US company that was guaranteed by Korea Exchange Bank (KEB). Under the Foreign Capital Introduction Act, when signing a loan contract or a technology introduction contract with foreigner, there was a need for it to be approved by the Minister of EPB. This means that the developmental government approval was required for the introduction of foreign loans for the construction of shipyards. In 1971, Hyundai Engineering and Construction received government approval for a foreign loan of USD 40 million for facility use from five countries, including the UK and Spain. In 1972, the Korea Shipbuilding Corporation applied for approval of USD 100 million with a 20-year grace period and an annual interest rate of 8% for the construction of shipyards. The introduction of foreign loans was essential for the construction of new shipyards, but the process was not easy. Companies had to demonstrate their 'efforts' to reduce the value of loan and the extent of these efforts became a crucial criterion for the approval of loan agreement. For example, in 1973, regarding Hyundai Engineering and Construction's foreign loan for the construction of a new shipyard, the EPB required them to show how much they could reduce the initially suggested loan amount and what methods would be used to achieve the same (Park, 2018: 499-500).

Examination of the introduction of the foreign loans that were secured by these early shipbuilding companies reveals that the government implemented a strict approval system, making the process of obtaining foreign loans rigorous. In particular, when approving loans for the importation of equipment, the government focused on whether there were any domestic alternatives or cheaper options available from other countries. This approach was as an effort to maximise the country's trade balance by curbing imports. At the same time, the efforts of the companies can be

interpreted as part of the state's strategy to sustain corporate discipline. The Korean developmental government directed companies towards industrial development with state autonomy and capabilities; however, there was lack of government's economic capability to execute these plans, only possessed an ability to control companies. In this context, granting companies the freedom to introduce foreign capital would significantly diminish the state's ability to control industrial capital and hinder state-led industrialisation policies. Accordingly, the Korean developmental state implemented central control over foreign exchange as a means to manage industrial development and maintain oversight.

Despite the stringent requirements imposed by the government during the foreign loan introduction process, the shipbuilding industry preferred foreign loans over FDI. This preference was primarily because the initial shipbuilding development plans were heavily focused on achieving self-reliant national defence, which fundamentally prohibited foreign entities from acquiring shares through FDI (Woo, 2019). In addition to this, the shipbuilding industry required relatively less technology transfer compared to other industries. The shipbuilding development strategy during the initial stage sought to construct shipyards first with foreign loans and import key components such as engines as needed. Constructing shipyards quickly and exporting ships was more urgent than either research or developing the sector's own technologies. According to inward FDI data from the Ministry of Trade, Industry and Energy of South Korea, the amount of inward FDI in the shipbuilding industry was relatively minimal. From 1962 to 1997, the cumulative inward FDI in the shipbuilding sector was just USD 12 million. This was less than one-third of the USD 40 million foreign loan that Hyundai Engineering and Construction applied for in 1971 to build a shipyard.

In this manner, the Korean shipbuilding industry was able to secure its initial industrial capital through loans rather than inward FDI. The government exercised control over incoming foreign capital and maintained power over shipbuilding companies through stringent reviews, thereby demonstrating the capabilities of the Korean developmental state. From the late 1990s, with the liberalisation of foreign investment, the influx of foreign capital increased significantly in general. However, by this time, the shipbuilding companies had grown into large corporations and they felt that they had little need to actively attract foreign investment. In addition to this, and upon entering the 2000s, these companies became global leaders and pioneers in shipbuilding technology; rendering foreign investment attraction strategies and government policy support largely unnecessary. Ultimately, after the 2000s, as shipbuilding companies had sufficiently grown, they gained the ability to manage their industrial capital without the direct or indirect foreign capital control by the state. This allowed the shipbuilding sector to move away from a historically specific type of intervention.

6.3.3 Producing electronics components and semiconductors using foreign investment

The introduction of foreign capital in the Korean semiconductor industry unfolded differently from the shipbuilding industry. When drafting the First Five-Year Economic Development Plan, the EPB established operational guidelines that allowed for the unrestricted introduction of foreign capital to address issues of capital and technology. As a result, in 1965, the first foreign joint venture in the electronics industry was approved, along with the investment project of Komy corporation which was the first semiconductor manufacturer. Subsequently, in 1966, Fairchild Semiconductor Ltd. obtained approval for 100% foreign investment, and in so doing become the first company in Korea to receive such approval. Other companies, such as Signetics Corporation and Motorola Inc., also received foreign investment approvals and conducted business activities in Korea. Despite being favourable towards inward FDI in the electronics sector, the government did not unconditionally allow foreign companies to invest in Korea. For example, in 1973, when approving a joint venture between Japan's Sanyo and Korea's Samsung Electronics, the EPB imposed several conditions¹⁴ (Park, 2021: 265). Notably, these included requirements that the entire production must be exported (see Article 2 footnote below), capital goods and raw materials must be reviewed before introduction, and for items that could not be imported, cash had to be introduced to procure them domestically (see Article 3 footnote below). Considering these two Article 2 and 3, it is evident that despite a preference for joint venture for technology acquisition, the fundamental principle of state developmentalism and neo-mercantilism, such as import suppression and export maximisation, were reflected in the policy.

To control domestic industrial capital and prevent foreign dominance, the government preferred the introduction of foreign loans over FDI; however, the electronics industry was an exception. The primary reason for this was because of its need to acquire technology from the advanced economies, particularly, the US. Here, the Korean government's long-term plan was to receive technology transfer through joint venture and then develop the domestic electronics industry with independent technology. In this regard, the government did not actively attract FDI in this sector

¹⁴ Foreign Investment Approval Conditions for the Korea-Japan Joint Venture in Electronics Component Manufacturing

1. The scope of this business shall be limited to be approved items, and any addition or change of items must receive government approval.
2. The entire production must be exported.
3. Capital goods and raw materials to be introduced must be reviewed before introduction, and for items that cannot be imported, cash must be introduced to procure them domestically.
4. The memorandum submitted on 22 June 1973, must be implemented before the introduction of capital goods and confirmed by the Minister of the EPB.

(Minister of the Economic Planning Board, June 1973; cited in Park, 2021: 265)

but also did not hinder it. In fact, as noted, the interpretation of the Foreign Capital Introduction Act, which varied by government department, was often in favour of foreign capital in the electronics sector, leading to controversies about reverse discrimination against Korean companies (Park, 2021: 251). As the Office of the Prime Minister noted:

To promote the attraction of foreign investment, favourable conditions were offered, such as allowing a foreign equity share ratio of up to 70% in joint ventures, with the condition of reducing it to 50% within 3 years, and providing special tax incentives. Furthermore, the government planned to allow up to 100% investment for the manufacturing of specialised products requiring technology acquisition. Therefore, securing funds to promote the development of the electronics industry, including attracting foreign investment, would be easier than in other industrial sectors.

(Office of the Prime Minister of South Korea, 1973)

The Korean semiconductor industry, which prefer to use FDI for introducing foreign capital, differs from the shipbuilding industry, as can be seen in data below. Figure 6.3 illustrates the changes of inward FDI in both shipbuilding and semiconductor sector between 1962 and 1997. During the period before the liberalisation of foreign investment, the amount of inward FDI in the semiconductor industry was significantly higher compared to that enjoyed by the shipbuilding industry, to the point that they are hardly comparable. After the implementation of the Foreign Capital Introduction Act in 1966, the semiconductor industry saw an increase in FDI, whereas the shipbuilding industry received almost no foreign investment. This stark difference highlights the critical importance of whether an industry required the introduction of foreign technology. Unlike the shipbuilding industry, which initially imported blueprints and key components from global lead firms, the semiconductor sector needed to acquire the technology itself because the industry involved producing components. This difference explains the different stance with regard to the introduction and use of foreign capital, a trend that continues to this day. Specifically, the semiconductor industry actively attracts foreign investment from companies like ASML and ARM to foster the semiconductor materials, components and equipment sectors. In contrast, the shipbuilding industry covers most of its own needs with domestic technology, except for some equipment, making it relatively passive regarding foreign investment.

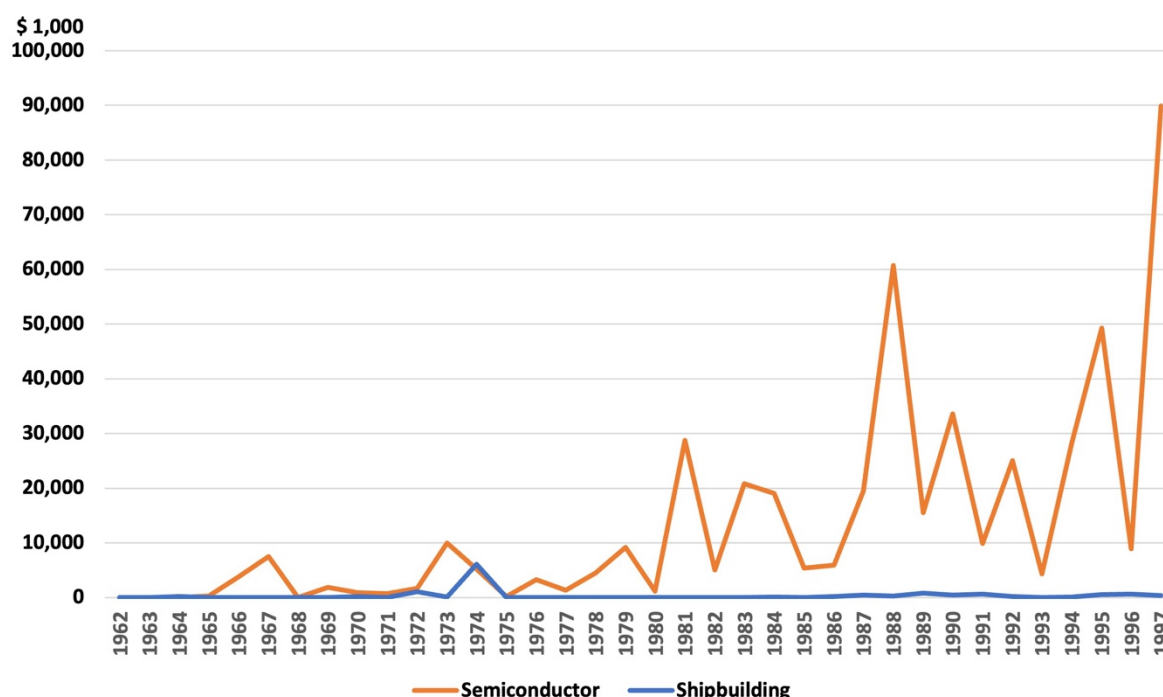


Figure 6.3 Comparing changes of inward FDI between the Korean shipbuilding and semiconductor industries
Source: Ministry of Trade, Industry and Energy; Author's compilation and illustration.

Overall, the developmental state's approach to introducing foreign capital did not unconditionally favour foreign loans over FDI. While sensitivity to foreign ownership was evident, sectors deemed critical for technology acquisition were offered favourable conditions to reduce barriers to foreign companies. This reflects a further deepening of the developmental state's selective industrialisation. In other words, even among the chosen industries, the state adjusted policy barriers according to its needs, providing different institutional support for individual targeted industries. When looking at the industrial policies of the developmental state, it is necessary to focus not just on the policies themselves, but also on how the same policies were interpreted and applied differently across sectors. The evolution towards post-developmentalism also follows this pattern. Even if the liberalisation of foreign capital introduction was implemented at macroeconomic level, the role of the state varied across individual industries. For instance, in the shipbuilding industry, there was little need for foreign capital introduction, resulting in a minimal role for the state. In contrast, the semiconductor industry saw the government actively promote foreign investment, indicating a larger governmental role. Ultimately, it can be concluded that there are no typical developmental or post-developmental ways by which to introduce foreign capital; instead, the state's role varied according to industry and conjunctures.

6.4 Conclusions

When discussing the transformation of the Korean developmental state into post-developmentalism, it is often suggested that a paradigm shift occurred in both national industrial and economic policies. Claims that state-led industrialisation and economic development policies were influenced by globalisation and neoliberalisation, leading to a market-friendly policy direction are often accepted as face value, and also consider the era after the 1997 financial crisis to be one represented by the idea of post-developmentalism. It is evident that there have been significant changes in the developmental state, that globalisation and neoliberalisation have had enormous impacts, and that the financial crisis in the late 1990s was a major turning point. However, this study questions: (1) whether developmentalism has truly transformed into a neoliberalised form, (2) whether or not it has emerged as post-developmentalism as a result of this transition, and (3) whether the characteristics of state developmentalism and post-developmentalism can be distinctly classified as a paradigm shift in terms of industrial policies.

With regards to the changes in national industrial policies, both the shipbuilding and semiconductor industries have shifted from development-oriented industrial promotion policies to comprehensive industrial policies. During the 1970s, when the state was nurturing strategic industries, laws were enacted to provide exceptional support to specific sectors, thereby fostering their growth. Post-1980s, however, uneven development between industries and WTO regime made such practices difficult to sustain, and this led to a shift towards policies that encompassing industry overall rather than just being focused towards supporting specific sectors. Despite this shift, it is difficult to conclude that the paradigm of the Korean industrial policy has shifted towards a more market-friendly approach. The reason for this suggestion is that although selective industrial policies have been abolished, Korea still has key strategic industries, and the role of the state in developing these industries remains emphasised. In addition, there still exists a mindset that advances such a role for the state. Industrial coordinating due to changes in the macro environment are inevitable, but rather following market logic, policy approaches by the government have been prioritised, and this has been evident in Korean industrial policy throughout the period studied in this work.

In addition, and with regards to introducing foreign capital, instead of adhering strictly to the typical developmental state or market-oriented approach, the Korean developmental and post-developmental state's foreign capital was introduced in ways that were suited to the realities of each industry. For instance, in the case of the shipbuilding industry, the industry initially introduced foreign capital under state control through foreign loans. After the industry matured and the role of the

developmental state diminished, clear state involvement became less apparent, and companies started receiving foreign loans or inward FDI based on their corporate strategies and situations. In contrast, in the semiconductor industry, and in order to secure technology, the state made an exception by allowing FDI at a relatively early stage. This indicates that, although the developmental state preferred foreign loans over FDI, it lowered institutional barrier to attract FDI for industries that needed to adopt existent technologies from elsewhere. While this may seem to follow market and corporate logic on the surface, it involved institutional adjustments by the state that focused on nurturing the strategic industries. As the Korean semiconductor industry grew and neoliberalisation progressed in Korea, the institutional barrier to FDI significantly decreased. The government has even become proactive in attracting investment in specific sectors, such as semiconductor materials, components, and equipment.

Conventional (post)-developmental industrial policies are understood as those that distort market logic to nurture specific sectors based on policy and political logic, or doing the opposite. What this study understands (post)-developmental industrial policies do not merely emphasise either the market or the state, but involve strategic state decisions that intermittently distort the market by the state's needs. This, in turn, implies that industrial policies can evolve and adapt based on specific circumstances and strategic decisions at different point of time. Thus, instead of distinguishing state developmentalism and post-developmentalism from a perspective of transition, it is more reasonable to view them from an evolutionary perspective that can change diversely according to individual industrial contexts and conjunctures.

Chapter 7. The changing role of the national state in state-firm relations and corporate strategies

7.1 Introduction

The preceding chapters examines how the state intervened in the economy and industry and the political economic context that made this possible. To understand the national economic and industrial activities amidst of the evolution of the developmental state towards post-developmental state, it is important to elucidate industrial production system and the state-firm relationship. Adding a dynamic perspective to the literature, the previous chapters demonstrate state actor is not a static entity and the state-firm relations are not fixed in a single direction, nor does it bring about a single outcome. In particular, state-firm relations were forced to change amid various contextual changes such as firm's global competition and participating in global production networks (GPNs).

This chapter delves into the changing dynamics of state-firm relations, with a focus on the shipbuilding and semiconductor sectors. It explores three points related to the relationship between the state and firms in the developmental state. First, state-firm relations and corporate strategies in the developmental state. It discusses developmentalist state-firm relations and corporate strategies in the context of strategic industrialisation. Second, (un)changed features of developmentalist corporate strategies. It explains continuity and legacies of the developmental corporate strategies that sought to promote exports and sustains its global leadership. Third, changing role of the state and state-firm relations amidst global issues impacting on industries. It elaborates on how the role of the state has in dealing with industries and firms created and changed in the course of global competition, openness and the liberalisation of corporate activities. By examining the shipbuilding and semiconductor industry cases in Korea, the chapter provides insights into how state-firm relations have (un)changed in the course of the evolution into a post-developmental state. And these three points build on existing state developmentalism research, which has focused on the benefits of government support for strategic industrialisation and the growth of firms. The chapter presents, compared to existent literature, a more nuanced and dynamic view of state-firm relations not only in the developmental but also in post-developmental era, and through so doing demonstrates how changes in the developmental state have not merely been influenced by neoliberalisation but have also dynamically evolved in tandem with legacy of state developmentalism and novelty from impacts of globalisation and neoliberalisation.

7.2 The developmental corporate strategy: The internalisation of production processes and catching up with advanced industrialised countries

The goal of the heavy and chemical industrialisation programme was to establish the national champions; large-scale capital companies that would contribute to the state's economic and exports growth. Only a few large companies, however, were able to participate in the programme due to the government's preference for specific companies which would become global lead firms in each sector. While it is undeniable that the government played a significant role in the initial growth of these companies, their internal corporate strategies were also crucial to securing their current global positions. For instance, to become the national champions and global lead firms, the shipbuilding and electronics companies in Korea had to align their corporate strategies with the government's industrial policies and strategies. Since these industries involve comprehensive assembly processes that rely on supply chains to ensure profitability, the government's goals of surging exports and corporate strategies were in sync. The way companies sourced intermediate goods at a low cost was reflected in industrial strategies with the developmental state.

7.2.1 Efforts to curb imports and increase exports through the use of a production integration strategy

Vertical and horizontal integration strategies, traditional concepts based on transaction cost theory, were considered useful in the developmental state industrialisation strategies because they could effectively reduce transaction costs. This strategy forced firms to internalise production processes to improve the country's trade balance, whilst also resulting in the expansion of the scope of the individual businesses. Korea had no reason not to adopt this strategy since the national champions covered various sectors at the same time, but were not capable of producing all equipment and materials that were required. Since lots of capital and intermediate goods had to be imported from advanced industrialised countries, the Korean government wanted to curb imports by developing heavy and chemical. However, a similar problem also arose in the heavy and chemical industrialisation strategy because the Korean firms still relied on overseas suppliers to import capital and intermediate goods. As a result, the government established policies to produce equipment and materials domestically, and the companies participated in this policy movement. Thanks to this policy direction, the national champions expanded the scope of their businesses by establishing or acquiring equipment and materials production companies.

With regards to reducing imports of intermediate goods and gaining cost competitiveness for

final products, firms adopted various strategies. One of these was the introduction of new technologies. This strategy was particularly crucial in the 1960s during the EOI strategy when raising industrial capital was a major challenge. It was also useful in the 1970s, when the heavy and chemical industrialisation strategy was the focus, and the acquisition of technology posed a significant hurdle. Since Korea lacked the core technologies required for strategic industrialisation, firms and government had to resort to introducing technologies from available source to reduce the costs of importing equipment and materials. Technology transfer is recognised as the most cost-efficient and rapid method of achieving technological innovation, not only in the developmental state but also in late industrialised countries. Countries such as Japan and the US played a significant role in facilitating technology transfer to late industrialised countries in East Asia by sharing their expertise. As Cummings (1987) observed, it is crucial to understand the interdependence of transactions, trade, investment, technology transfer and production networks between countries instead of focusing on individual countries' growth processes. During the 1970s, advanced industrialised countries transferred their manufacturing technologies and processes to late industrialised countries. Starting with simple assembly processing technology, these countries gradually developed their own industrial technologies (Ryu and Lee, 2003).

In the early stages of the Korean industrialisation, technology transfer from Japan was particularly significant. This transfer not only brought in technology but also transferred the development model, with Korea adopting an industrialised model based on Japan's experiences. For example, the president's declaration of heavy and chemical industrialisation in 1973 was also based on Japanese experience¹⁵, with specific methods of selecting and supporting promising industries determined accordingly (Lim, 2018; 45-46). The process of technology transfer from advanced industrialised countries such as Japan and the US to Korea can be broken down into four stages (illustrated in Figure 7.1). The first stage involves importing parts and equipment while taking charge of the final assembly process using low domestic labour costs. This allows for the introduction of the industry and the initial use of foreign technology. The next step is to attract FDI in the assembly process and establish advanced production lines domestically, thereby creating a network with technologically advanced companies. Through this network, technology exchange can occur through the recruiting of foreign engineers or by dispatching domestic employees to advanced companies. In the third stage,

¹⁵ At Export Promotion Expansion Meeting in May 1972, O Won-Chul, the senior secretary for economic affairs, explained Japan's industrial model to the president, and said that Korea should follow the industrialisation strategy. The goal of exports of USD 10 billion and per capita income of USD 1,000 were set by borrowing what Japan had achieved in the 10 years since its heavy and chemical industrialisation (National Archive of Korea, <https://www.archives.go.kr/next/search/listSubjectDescription.do?id=007346&pageFlag=&sitePage=1-2-1>).

the domestic company acquires processing technology based on the assembly experiences and direct technology contact with advanced companies. Finally, the domestic company gains the ability to carry out final assembly through its own development capability. In the final stage, technology is developed internally to achieve cutting-edge technology, and it is no longer about acquiring overseas technology but rather about innovation. This process aligns with the 'Original Equipment Manufacturer (OEM) – Original Design Manufacturer (ODM) – Own Brand Manufacturer (OBM)' path, a typical linear route for catching up with foreign advanced technologies (Chu, 2009), and this technology transference and development trajectory has been mirrored across various sectors including the semiconductor industry.



Figure 7.1 Technology transfer process in late industrialised country
 Source: Author's own.

This initial industrial and economic development through linear technology transfer represents the typical flying geese model. This model spread geographically from the US to Japan, and then to Korea and Taiwan. Each country proposed appropriate industrial development and economic growth policies in line with this model, and in so doing incorporated the international division of labour through technology and manufacturing transfer. This created common and interconnected characteristics between East Asian developmental states. Nevertheless, this linear technology transfer process has limitations in reflecting the specific conjunctures and contextual characteristics of each country and sector. In other words, it is difficult to reveal the complex processes connected to the politics and institutions of each country regarding the transfer of production technology. Hence, it only allows for a partial understanding of the dynamics of international division of labour within variegated system of capitalism in the late 1900s.

7.2.2 Building its own ships: Korea's developmental production strategy in the shipbuilding industry

In case of the shipbuilding sector, the shipyards in Korea faced high dependence on foreign countries for capital and intermediate goods; major challenge for the industry. The need to assemble over a thousand pieces of equipment and materials such as metals, machinery, and electrical appliances made it impossible to acquire all these materials domestically. Table 7.1 displays the shipbuilding industry's reliance on overseas equipment and materials during the 1970s; they accounted for about

three-quarters of total costs. Although the ratio gradually decreased, the industry still relied on imported overseas equipment and materials, which made up about 50% of the manufacturing cost. To reduce the overseas dependence on intermediate goods and decrease production costs, the Korean shipbuilding companies needed to produce core equipment and materials domestically. In order to do so, the sector adopted vertical and horizontal integration strategy through cross-subsidisation within the chaebol group so that intermediate goods to final products could be produced. Given that the shipbuilding sector's equipment and materials costs accounted for approximately 70% of the total shipbuilding costs (as illustrates in Figure 7.2), internalising related companies became a core corporate strategy of the shipyards. Furthermore, since the Korean shipbuilding industry's comparative advantage was in price competitiveness, obtaining intermediate goods for shipbuilding cheaply was crucial for maintaining competitiveness.

Table 7.1 Overseas dependency on equipment and materials in the shipbuilding industry
(\$ million, %)

	1970	1972	1974	1975
Annual shipbuilding cost	31.2	40.4	269	385
Equipment and materials cost (a)	25.0	27.1	180	257
Equipment and materials imports (b)	20.2	21.1	135	187
Equipment and materials for domestic production	4.7	6.0	45	73
Dependency on equipment and material import (b/a*100)	80.8	77.9	75.0	71.6

Source: Adopted from Park (2018) table 7-2, p.232; Author's modification.

For example, in order to address the challenge of reducing foreign dependence on equipment and materials, the Hyundai group implemented an internalisation strategy. Specifically, it established a construction material company, Hyundai Heavy Industries¹⁶ (HHI) set up a machinery company, and Hyundai Motors established a steel company and internalised equipment and materials. Although HHI, which includes the shipbuilding division, does not have a steel company under its corporate governance structure, it horizontally integrated a steel company, Hyundai steel, on a pan-Hyundai group scale. To produce ships domestically, HHI made transactions with domestic companies such as Hyundai Steel and POSCO for steel plates, while also trying to produce engines itself through the subsidisation of the engineering companies. According to an interview with a practitioner of HHI, almost all of engines used in HHI ships are currently produced in Korea. Whereas the engines for very large ships such as VLCC are manufactured by HHI under technology licenses from MAN Energy Solution in Germany and Winterthur Gas & Diesel in Switzerland. In terms of medium-sized ship

¹⁶ Hyundai Heavy Industries (HHI) changed its name to HD Hyundai in 2023. Since the company name was HHI at the time of the data collection of this study, a considerable number of data uses the previous name. In order to prevent confusion, this study also use the previous company name, HHI, as a whole.

engines, they are all developed and produced by domestic engineering companies. In addition, HHI also produces its own transformer and engine equipment for eco-friendly ships and has achieved vertical integration of its production and supply chains (Interview, a practitioner of HHI, 30 April 2022). It is also the case that HHI has taken over and made sub-contracts with other SMEs that produce pipes, ducts, and electronics appliances to develop its ability to make its own ships. These efforts were reflected upon in interview by a former executive of HHI. He noted:

“Most of the steel plates used by the (HHI) shipyards are supplied from POSCO and Hyundai Steel. And for diversification of the supply chain, Japanese and Chinese (steel) plates are also imported. We (HHI) tried a lot to produce our own engine, and at first, we signed a technology contract with Switzerland, Japan, and Germany to produce in Korea. But not long after I joined HHI (he joined HHI in 1989), I started developing medium-sized engine, and we made it 10 years later in 2000. At least we were able to build a medium engine without a foreign technology contract. And not just the engines, but the tiny pieces of equipment have already been built in HHI or outsourced to subsidisations. We made everything from start to finish.”

(Interview with a former executive of HHI, 13 October 2022; Author’s translation)

With the vertical and horizontal integration of equipment and material companies, “our own ships, our own engines, and our own designs” became a slogan that could be achieved (Amsden, 1989: 273; Yeung, 2016: 123), and Korean shipbuilders were able to get stable internal supply chains, whilst also helping to improve the nation’s trade balance. This developmentalist mindset of ‘purely our technology’ still remains in the Korean shipbuilding industry today.

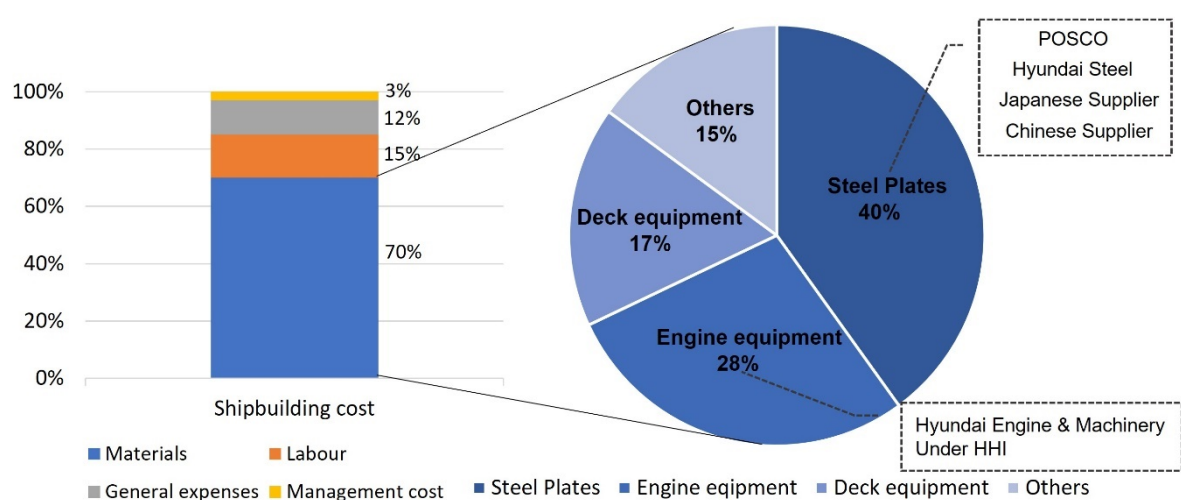


Figure 7.2 Shipbuilding costs breakdown

Source: Author’s own with data compiled from interviews with a former executive and an employee at HHI.

7.2.3 Making its own chips: Korea's catch up with advanced semiconductor industrial countries

In case of the semiconductor industry, which is classified as a high technology manufacturing industry, followed the typical path of the technology transferring from advanced economies. Initially, the semiconductor industry in Korea was only involved in simply assembly processes with low technological sophistication. In the 1960s, the US-led semiconductor industry sought to improve productivity by separating the technology-intensive wafer fabrication process from labour-intensive assembly process, and some assembly lines were relocated in Korea, where labour costs were relatively low and policy benefits could be enjoyed. The first semiconductor company in Korea, Komi Electronics Ltd., was established in 1965 through a joint venture with US firms of which the investment ratio of domestic and foreign capital was 75:25, with USD 76,000. Over the next few years, US semiconductor firms Fairchild Semiconductor Ltd. invested USD 2 million, and Signetics Corporation invested USD 1.5 million to establish a production company in Korea (ETNEWS, 20 July 2016). These companies were responsible for producing semiconductor components and taking the final process of transistor production, using cheap domestic labour. During the 1960s and 1970s, Korea's semiconductor industry acted like a global semiconductor assembly line that produced transistors, integrated circuits (ICs), diodes, and memory chips (Kim *et al.*, 2015). This served as an opportunity for Korean companies to acquire production know-how and expertise. Since Korea's semiconductor industry had no industrial experience at all, there was no way to nurture the industry except to introduce advanced foreign technologies. This was achieved through establishing cooperation with foreign firms.

Thereafter, rising prices and labour costs caused by the oil shocks in the 1970s led US firms to reduce their investments in Korea, and domestic electronics firms began to replace the void which that retrenchment had created. In the 1980s, the Korean government implemented policies to support developing the country's own semiconductor technology with basic skills acquired through production experiences and the technology gap was narrowed. One example of such government institutional involvement was the joint development project for 'Ultra-high Integrated Semiconductor Technology', which sought to develop DRAM. DRAM was a suitable development item for initial entrants in the semiconductor sector as it is simpler to design and produce than other IC chips and can be mass-produced. As shown in Table 7.2, the project was conducted via a private-public collaboration, and took advantage of DRAM controlled by Electronics and Telecommunication Research Institute (ETRI) - a national research institute in Korea. As a result of the project, Korea succeeded in developing 4MB DRAM a little later than US and Japanese firms, with the 16MB DRAM completed at a similar time. With regards to 64MB DRAM, Korea developed faster than the countries, and succeeded in achieving

innovation in cutting-edge technology – the final stage of technology introduction.

Table 7.2 National projects for manufacturing memory chip development

	4MB DRAM	16MB DRAM	64MB DRAM
Research period	Oct.1986 – Mar.1989	Apr.1989 – Mar.1991	Apr.1989 – Mar.1993
Research funds (KRW billion)	88 (Government funds 30)	190 (Government funds 60)	195 (Government funds 91)
Major actors	Leader: ETRI (Electronics and Telecommunication Research Institute) Participants: Samsung Electronics, Goldstar, Hyundai Electronics		

Source: Adopted from Kim *et al.* (2015) table 7, p.156; Author's modification.

The role of the government was still emphasised until the technology introduction strategy reached its final stage. In particular, the ETRI, which was in charge of the central control of the project, was given the authority to select participants, allocate budgets, and evaluate projects, and additionally encouraged private companies to cooperate rather than compete against each other; thereby emphasising that this project was a presidential project for the national interest. When the 4MB DRAM plan was implemented in 1986, the government was still a military dictatorship, and related policy documents stated that 'the ETRI director should take over the authority over human resources of all researchers, and that the three private participants should cooperate under the direction of the head of the institute' (Kim *et al.*, 2015). The project carried out on the national scale can be seen as evidence not only of the government's willingness to develop semiconductor technology, but also as evidence of risk of private firms with insufficient technology base and financial resources instead. The basic technology and competition of the companies participating in the project might also have played an important factor in technology development, but crucially, the government's supportive role was significant in making leading players in the memory chip sub-sector. This, in turn, enabled it to take first mover advantages¹⁷. In turn, the national strategy of nurturing a specific industry in catching up with the technologically advanced economies allowed for the rapid development of the semiconductor industry. Leveraging production know-how and technology, the Korean semiconductor industry was able to become a global leader in the memory chip sector. This development strategy was conjuncturely specific and was based on the prevailing uneven development in the variegated system of capitalism with the state creating concrete development path.

¹⁷ The semiconductor industry had strong first mover advantages. First movers that have prior technology and release products before their competitors can benefit in terms of technological leadership and the pre-emption of assets (Lieberman and Montgomery, 1988).

7.3 Continuation of the developmental corporate strategy: Strong domestic production networks and weak participation in global production networks

The Korean developmentalist corporate strategy that sought to improving the national trade balance and introducing new technology was successful in achieving its goals. Through the internalisation strategy and technology transfer, the national champions were able to attain economies of scale and become global lead firms in their respective industries. Nevertheless, after the era of state developmentalism, the Korean state has undergone significant changes. There might be less state autonomy and capability due to democratisation and globalisation, and the state's focus could be shifted from solely pursuing national goals to considering expanded agreements among various social forces and relations with other countries. It reflects a transition from Korea's unique development model to a more general one within global capitalism. Corporate strategies have adapted to these changes; however, that adaptation has happened slowly due to the strong institutional path dependence of the developmental state. By sustaining and depending on this successful path, the state and firms can continue to work towards achieving their export growth targets while strengthening their competitive edge in the global market. In other words, the Korean state and firms are adapting to the new global environment based on this developmental path, gradually modifying the path and moving towards post-developmentalism

It is essential to consider the continuity of the developmentalist corporate strategy because it has been shown to be successful. Whether viewed from the perspective of the state or individual firms, there is no reason to deviate from a path that has already been successful, even if a new path may be more advantageous. Mindful of this, this subsection elaborates upon why the Korean shipbuilding and semiconductor industries still emphasise existing developmental corporate strategies.

7.3.1 Consolidating domestic production networks in the Korean shipbuilding industry

Shipbuilders pursued an internalisation strategy to maintain cost competitiveness even in the globalisation of production process. This was because cost competitiveness is a critical issue in the shipbuilding sector. As shown in the global shipbuilding lead countries in Table 7.3, countries that can control the global market through cost competitiveness have become global leaders in the shipbuilding industry. There are some unique characteristics in the shipbuilding sector with regard to cost competitiveness because the global shipbuilding market is competitive in a single, large-scale market worldwide. For example, if a large shipping company presents a shipbuilding project, many companies around the world compete for the project. In the process of doing the same, individual

shipping companies and shipyards are aware of companies that affect the market and, as a result, the symmetry of information is relatively higher than that of other sectors. Since the global competition in the shipbuilding industry relies on such open information, advancing the competitiveness of production, such as higher productivity, technology and cost competitiveness, is the key in positioning global leadership. To achieve maximum productivity and reduce production costs, countries that have globally led the shipbuilding industry have each developed their own production methods and internalised materials and parts. For instance, both the UK's and Japanese shipbuilders, which were global leaders before the Korean shipbuilding companies, developed their own shipbuilding methods while also building up their steel and machinery industries to enable the internal supply of key equipment and materials (The Society of Naval Architecture of Korea, 2015: 86). Similarly, the Korean shipbuilders reduced production costs through the internal procurement of equipment and materials while building several ships using the floating dock method. In the shipbuilding industry's global competition, reducing production costs through stable and cheap supply of equipment and materials is critical for global competitiveness since technology can be quickly adopted by competitors. Given this, Korea's shipbuilding industry continued to focus on cost reduction and maintain the developmentalist corporate strategy, with both key to its success in the global market.

Table 7.3 Changes in the global shipbuilding leader

	~ 1950's	1960-1980s	1990-2020s	2020's ~
United Kingdom	Rivet method Cost competitiveness			
Japan		Welding-Block method Cost competitiveness		
South Korea			Floating dock method Cost competitiveness	
China				Cost competitiveness

Source: Author's compilation from The society of Naval Architecture of Korea, 2015.

Since the shipbuilding industry involves more than 460 components from over 10 industries, inter-sectoral cooperative development and specialisation of parts is essential from the potential of development strategies. Despite Korea's large shipyards using the internalisation strategy, it was impossible for all the equipment and materials needed to be supplied internally by the individual shipyards. To tackle this issue, domestic production networks were established by major shipbuilders to expand domestic supply chains. Figure 7.3 illustrates the domestic production networks of Korea's shipbuilding industry. Notably, the Korean shipbuilding industry has successfully achieved the domestic production of steel materials and platforms; the industry's most crucial components. Steel

plates are supplied in the domestic market from POSCO and Hyundai Steel; eliminating the need to import them from foreign companies except for certain specific supplies. There was no requirement to establish global production networks for engines and electrical equipment as these are mostly supplied by the individual shipbuilding companies or through domestic suppliers. It follows, that the strong domestic production networks created by the developmentalist corporate strategy resulted in a stable shipyard operation, and also meant that there was no longer a reason to promote the global diversification of equipment and material supply.

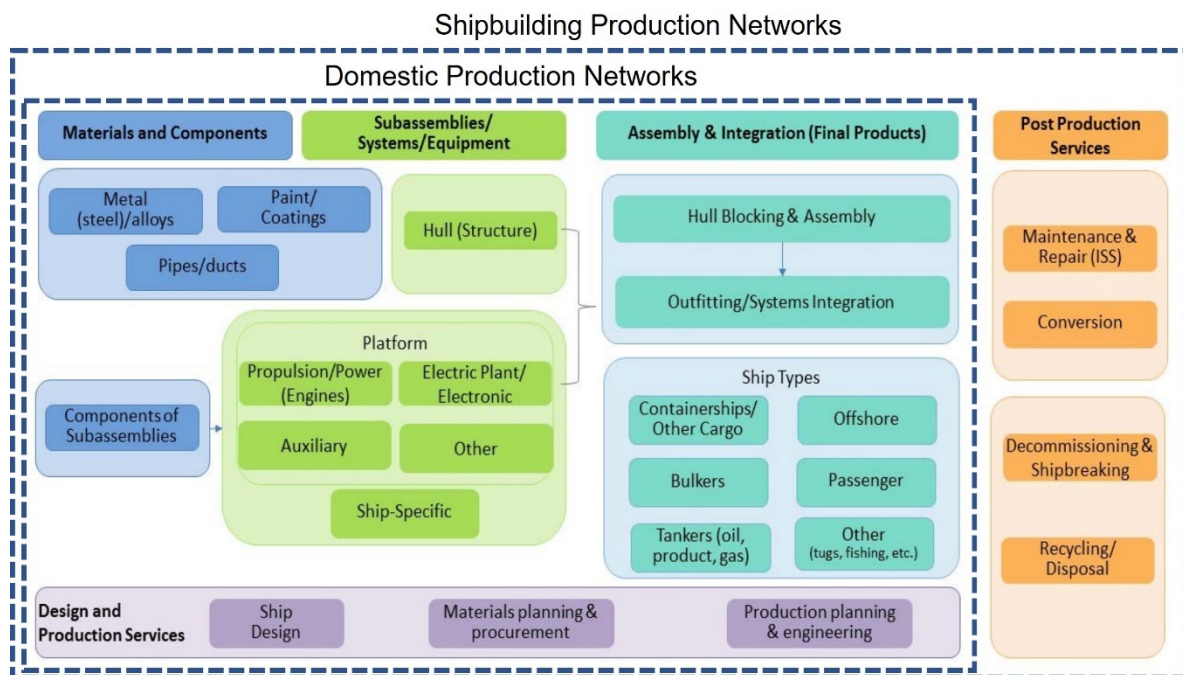


Figure 7.3 Domestic production networks of Korea's shipbuilding industry
 Source: Adopted from Frederick *et al.*, (2017) Figure 4-3; Author's modification.

Since a shipowner's requests determine the equipment to be mounted on the given ship, domestic equipment was rarely used in the early days of industrial development, and Korea's technology at that time was also insufficient and had low reliability. Nevertheless, the domestic production of shipbuilding equipment increased due to the government's measures to curb imports of intermediate goods, with other equipment, except for steel plates and engines, being produced by related industries' SMEs (Woo, 2003). Large shipyards also formed subcontracting relations with SMEs in related industries. These networks have been in place since the 1980s and have functionally interlocked with each other (Woo and Lee, 2018). In the 2000s, the domestic production networks were strengthened by the institutional establishment of a Coastal Belt in the south-eastern coastal region in Korea (Woo, 2004). This led to a geographical concentration of the shipbuilding and

shipbuilding-related industries, and the establishment of industry-academic-research networks, which strengthened local networks rather than global networks. Overall, the domestic production networks of the shipbuilding industry were created not only by the industrial nature of small parts that could be produced in Korea but also by the efforts of central and local government to institutionally gather SMEs in certain regions, thereby creating a unique mode of corporate production that blended developmentalist feature and global production networks within the variegated system of capitalism.

While it is true that the Korean shipbuilding industry primarily relies on domestic production networks, it does also participate in some weak global production networks. For instance, in the case of large-scale engines for ships, original technologies are owned by MAN Energy Solutions in Germany and Winterthur Gas & Diesel in Switzerland. Korean shipbuilders have established technological production networks with these companies. They set up technological alliances by paying technology royalty fees and producing the engines in Korea. Large shipbuilders also work together with these companies by establishing a network of ship engine technology development. Similarly, the LNG container used for tanker ship is produced in Korea by paying technology fees to the French company GTT. While Korean shipbuilders and equipment companies are equipped with the technology for large engines and LNG containers, they collaborate with global lead firms to expand their technological capabilities and strengthen their competitiveness by using their brand values.

“It has already been released through the media, Korea has already made LNG container (KC-1) and built LNG tankers equipped with our (Korean) own technology two or three times. However, since ship production is strictly carried out according to the demander’s order, the container made with domestic technology are not easy to be adopted until they are reliable. The problem is that it takes a considerable amount of time for this technology to secure reliability. The reliability of ship equipment depends on how far it was operated without problems (Track-record), but domestic technology has yet to fill the distance. If reliability is secured someday, the domestic production rate of LNG tanker will be close to 100%, which is not easy. That is why we (Korean shipbuilders) have no choice but to continue using (French) GTT container technology while paying for it.”

(Interview with a former employee of DSME, 13 October 2022; Author’s translation)

As per the interview, the current production system through the global networks is attributed to the reliability of technology and brand power rather than domestic technological problems. Korea’s shipbuilding industry has produced many things from materials to end products with its own technology, but shipbuilders have also strategically incorporated themselves into global shipbuilding

production networks when it comes to building large ships and LNG tankers. The KC-1, the Korean LNG container, has been developed by a national state project led by the Korea Gas Corporation since 1994, and despite the container development being carried out as a national programme, Korean shipyards continue to use foreign technologies under the strategic judgement of firms. This strategic judgement is clearly different from the domestic production of the shipbuilding equipment in the 1980s, as noted, domestic production networks tended to be used in shipyards even if the reliability of domestic equipment was not secured. Currently, the global production networks in the shipbuilding industry are used with regards to the technological reliability, brand powers, and buyers' needs. The Korean shipbuilding industry has strong domestic production networks that were created in the 1970s-80s, whilst global production networks are also emphasised under the judgement of the shipyards.

7.3.2 Consolidating intra-firm networks and trades in the Korean semiconductor industry

Since the 1990s, companies leading strategic industries have experienced rapid development. This has propelled them to global leadership positions. However, for a late industrialised country like Korea, whether it has caught up with advanced industrialised countries remains a pertinent concern. If 'catching up' is defined the ability to participate equally in global competition with advanced industrialised countries, then it can be argued that Korea has indeed caught up with global lead firms and countries, and that post-developmentalism arrived in Korea (Chu, 2009), as evidenced by its dominant presence in the memory chip and shipbuilding sectors. Nevertheless, when the overall business landscape is considered, Korea's global competitiveness is primarily concentrated in the 'manufacturing' sector. In light of the fact that the Korean state has global competitiveness in the manufacturing industries, but, simultaneously, a manufacturing biased economic and industrial structure generates path dependence and lock-in effects in specific sectors.

Looking at this through the Korean semiconductor industry, there still exist the developmental corporate strategy. With the intensifying global semiconductor competition of the 2000s, the industry began to specialise and divide into distinct segments. The production process for semiconductors, in particular ICs, comprises three distinct steps: design, wafer fabrication, and assembly and testing, and an IDM takes charge of the entire process. In Korea, the semiconductor industry has developed in a manner that is primarily centred on IDM, and is focused on the mass production of memory chips. This aligns with the developmentalist corporate strategy that emphasises economies of scale, and can clearly be identified by the industrial structure that centres on increasing exports and curbing imports. According to Statista's semiconductor statistics, memory chips account for only about 30% of the industry's market share, whilst system semiconductors, such as Logic, Micro components and Analog

make up the remaining 70% as discussed in Chapter 5. While the size of IC chips is growing in the semiconductor market as a whole, the market that the Korean semiconductor industry is focusing on is only 30% of the memory chip sector. It follows, that the Korean semiconductor industry has mainly grown in areas in which production technology is essential, whereas the areas that require R&D have not been developed adequately. Furthermore, as specialisation in processes and production networks becomes increasingly crucial, Korea's semiconductor industrial structure that concentrates on producing memory chips has become more apparent. According to a Bank of Korea's report, there has been a structural change in the global semiconductor industry in which the growth of specialised firms, such as chipless, fabless and foundry, has surpassed IDM which primarily focuses on memory chip manufacturing. The chipless and fabless which emphasise R&D function, have grown nearly 20% over the last 30 years and fabless, which emphasises system semiconductor production, has grown about 10%, whilst IDM has grown only 5% during the same period (BOK, 2016b). The growth rates of upstream sectors are higher than other sub-sectors and IDM, indicating a shift towards a technology-oriented industrial structure.

The Korean semiconductor industry focused on memory chips as they were in high demand until the 1990s and were relatively easy to mass produce due to their standardisation and simple structure. This allowed latecomers to enter the global market competition. In addition, similar to the shipbuilding sector, electronic companies in Korea also tried to complete the production process within their business groups or via the domestic market (Investchosun, 17 August 2017). For example, as shown in Figure 7.4, Samsung have comprehensive electronics companies which include not only components producers such as semiconductors, displays and batteries but also downstream industries that heavily relied on memory semiconductors for their products. The semiconductor division (Samsung Electronics DS division) were able to sell their memory chips within their business group that included domestic overseas affiliates. Due to a great number of semiconductors are consumed in-house production processes, the company created and developed memory chips used for their own final products.

This memory chip centred production strategy led to an imbalanced industrial structure between memory and system semiconductor sectors. While memory chips, needed for computers, consumer electronics, and telecommunication devices, are produced and consumed in great number in-house, system semiconductors like micro components are largely imported. This lack of focus on developing the system semiconductors lead not only missing opportunities to meet consumer demands but also hindering the development of related machinery and materials sectors (OECD,

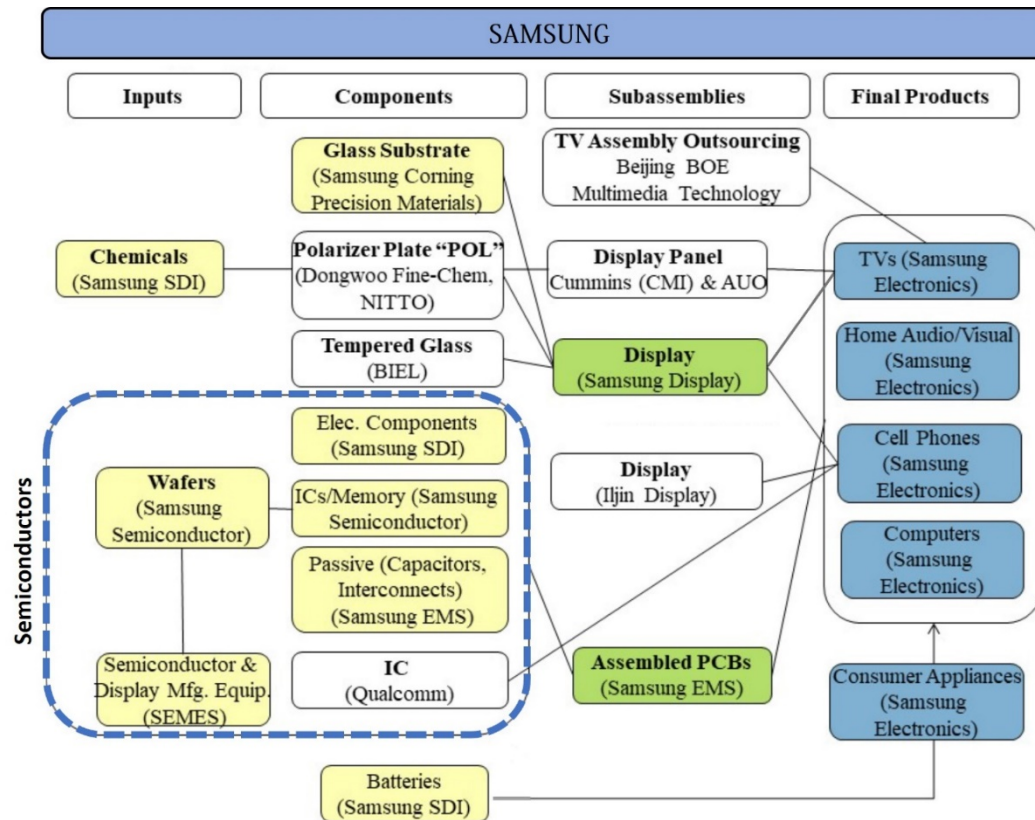


Figure 7.4. Samsung Electronics in-house supply chains

Source: Adopted from Frederick *et al.*, (2017) Figure 3-3; Author's modification.

1996). This asymmetric semiconductor industrial structure has continued to the date. Figure 7.5 shows that the Korean semiconductor industry has grown a memory chips bias. As of 2020, the Korean semiconductor industry accounted for about 20% of the global semiconductor market. About 70% of the market share of 20% came from memory chips, and system semiconductors accounted for about 26%. This links to the profit structure of Korean semiconductor producers, about 90% of SKHynix's revenues and about 80% of Samsung Electronics DS division's revenues come from memory chips. While the imbalance industrial structure of the Korean semiconductor industry centred on memory semiconductors did have positive impacts on rapid growth and export maximisation, it also had significant disadvantages when it comes to reducing the industry's ability to respond to risks such as the diversification of semiconductor demand and increasing global competition. In addition, as noted, there is a problem that core materials and equipment are still dependent on imports because the Korean semiconductor industry is specialised in manufacturing memory chips. This is important to note because it suggests that the Korean semiconductor industry is locked-in the developmentalist production strategy that was created by collaboration between the developmental government and firms, which later consolidate the developmental mindset that mass production and export is more significant than R&D.

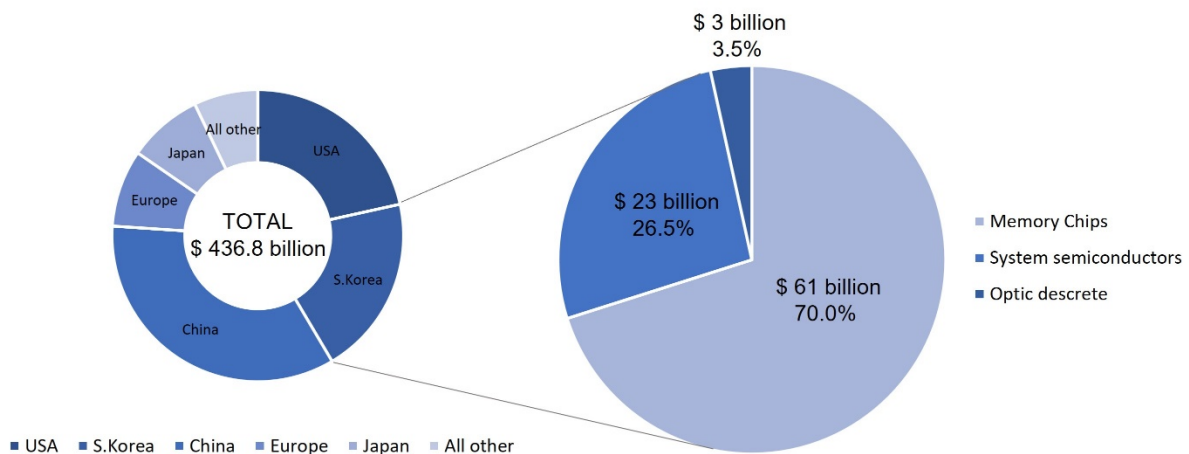


Figure 7.5 The Korean semiconductor structure in 2020

Source: Bank of Korea Statistics; Author's compilation and illustration.

It is not the case, however, that there was no opportunity to reorganise the structure centred on memory semiconductors. The Korean semiconductor industry had the potential to specialise in the fabrication process, also known as Foundry, which produces system semiconductors according to the needs of Fabless firms. This was not actively pursued until the early 2000s due to the negative recognition of foundry firms as subcontracting businesses. Korean semiconductor producers neglected foundry process, whereas Taiwanese firms actively fostered foundry firms from the early 1980s. Samsung Electronics, for example, was hesitant to be labelled as 'Samsung Electronics is a foundry company' (ETNEWS, 24 November 2005), as such, the company advocated IDM that has manufacturing processes from beginning to end. This led to stagnation in the domestic foundry sector, and is one of the reasons for 'lagging behind' development of system semiconductors compared to memory chips.

With the developmentalist mindset that it should be manufactured from beginning to end, the Korean semiconductor industry missed its initial opportunity to grow system semiconductors; creating the asymmetric industrial structure that now exists. This industrial structure of the Korean semiconductor sector, with its bias toward memory chips, is based on the path dependency of developmental corporate strategy, and resulted in locking in the state developmental mindset that prioritises mass export. This narrow focus on manufacturing has caused Korean firms to miss out on other opportunities to lead the up streams. In this regard, the answer the earlier question of "Has Korean firms, as a late industrialised country, caught up with advanced industrialised country?", it can be said that at least the semiconductor sector, it has not caught up with advanced semiconductor countries. While the Korean semiconductor sector accounts for about 20% of global semiconductor

market share, both the Korean state and firms have common concerns of catching up with up-stream values like chip design and R&D in core materials and equipment with advanced corporate strategies.

7.4 Changes in state-firm relations within the evolution of the developmental state

During the first three decades of state developmentalism, both the state and firms shared the goal of increasing exports, with national and corporate strategies focused on controlling imports and boosting exports. The government's industrial policy for internalisation was geared towards the domestic production of equipment and materials, with the Foreign Capital Introduction Deliberation Committee mandating firms to obtain confirmation from the MCI on whether the equipment could be supplied domestically as a pre-condition for permission for overseas loan contracts for import equipment (EPB, 1972). For example, Hyundai Engineering & Construction applied for a contract to introduce loans for equipment from the UK to build a shipyard, the MCI gave a review on whether it could be supplied domestically (EPB, 1973). At that time, domestic technology for equipment production lagged behind international standards, and despite the challenges of not meeting those standards, shipyards internalised equipment and materials companies to gain government benefits. The MCI actively promoted quality inspection to ensure the performance of shipbuilding materials, the introduction of ship technology, cooperation with renowned foreign companies to use their brands, and set the goal of full domestic production of equipment and materials in the 1980s. When introducing new technologies, the state played a leading and supportive role, organised a task force team and provided financial support for the same. The state's support was more emphasised than individual actors by controlling them by state's strict disciplines.

These cases suggest that the relationship between the state and firms in the developmental state was determined by the extent of control that lay within the state's capability. In areas that the government could regulate, such as industrial financing, it assumed the role of regulating and controlling firms to achieve its goals. In areas that lay beyond state capability, such as introducing new technology, however, the government took a step back and provided assistance to firms. Thus, state-firm relations in the developmental state were not fixed, but depended on the role played by firms and the extent of change; ranging from strong regulation to assistance. This subsection sheds light on dynamic roles of the state and state-firm relations in the course of the evolution to the so-called post-developmental state.

7.4.1 State-firm relations as an extension of developmental corporate strategies in post-developmental era

The corporate strategy of the developmental state remained similar in the so-called post-developmental era. The government's macro industrial development policies, which had been a cornerstone of the developmental state, were thought to have ended with the industrial rationalisation policy in the 1980s. The policy was aimed at reducing excessive investment in the six industrial sectors (see Chapter 4) after the heavy and chemical industrialisation programme was promulgated in 1973. Since then, there has been no government-led target industry promotion policy, and the government's role has shifted from steering to the supervision of industries. This shift in the role of the central government was influenced by the process of democratisation in the late 1980s and globalisation in the early 1990s. Prior to the mid-1980s, the government enjoyed a high degree of state autonomy and capability, which allowed it to play a leading role in industrial development. After democratisation, however, policy making became more consensus-based, involving various social forces, and the government's ability to affect market distortion was significantly reduced due to the openness of economies and state administration.

The role of the state in state-firm relations was supposed to diminish in the course of the evolutionary process towards post-developmentalism. This would primarily occur because many companies had grown to a size that was beyond the scope of government control. The national champions that had achieved capital accumulation through successful industrial activities and benefits from the government, were now capable of raising capital themselves without further government support. In addition to this, the supply chains and networks created by the interactions between markets and firms has become more significant than the government's interventional role. In other words, the Korean semiconductor and shipbuilding industries have grown to meet the government's policy goals while developing the ability to operate well without the government's beneficiary roles, as well. In the meantime, from the government's point of view, there is also no longer need to implement policies that support nurturing matured industries and companies, but instead the role of the state shifted toward supervisory roles to sustain the current industrial activities and global leadership like abolishing individual industrial promotion laws in the 1980s (ref Figure 4.1). While companies still exhibit developmentalist features in terms of their corporate production strategies, the relationship between the state and firms has gradually shifted towards marketised and neoliberalised ways. As a result, companies and the state now hold relatively balanced positions in terms of corporate activities.

Until the late 1980s, Korea followed an export-driven and externally dependent industrialisation model with active government intervention in industrial, trade, and economic policies. As a result of the developmental strategic industrialisation, leading companies were able to grow up to a position similar to that of the state in terms of exerting more than capabilities within their respective industries. However, the democratisation in the 1980s and the financial crisis in the 1990s brought about institutional movements, including a weakening of the state's role, the strengthening of capital power, and the liberalisation of trade and investment (Moon and Chung, 2014). With the implementation of the IMF bailout programme in 1997, the Korean government adopted a neoliberalised economic system characterised by macroeconomic austerity, openness and the liberalisation of foreign exchange, capital, and trade (Yoon, 2009). The state became the so-called 'post-developmental' state. These institutional changes created a more challenging environment for state intervention in industries and companies, as the state's role was reduced in favour of market-oriented policies. At the same time, Korean companies became global leaders, and the globalisation of business activities emphasised the importance of corporate capability and global networks. Despite these changes, the state is supposed to still play a crucial role in the post-developmental era. While the nature of the state may have shifted toward neoliberalised ways, the state continues to be involved in shaping the economic landscape. Then, how did the role of the state change in the course of neoliberalisation of state developmentalism? And why is the Korean state still trying to intervene in industries and companies in the so-called post-developmental state? In the developmental state, the role of the state played a role in transplanting and fostering industries, and as industries developed, the state played a role in supporting them. The post-developmental state, the state seems to pay more attention to sustaining the international competitiveness of such developed industries. This changing dynamic within the evolution of the Korean developmental state makes discussions on post-developmentalism to lean towards the geographical contextualisation within the variegated system of capitalism.

7.4.2 Sustaining the global leadership of the shipbuilding industry during periods of industrial crisis

The Korean shipbuilding industry's competitiveness stemmed from strong government beneficiary roles, relatively low labour costs, large-scale shipbuilding infrastructure and growth of related industries, which allowed Korean shipbuilders to lead the global market. Figure 7.6 shows the portion of global new ships orderbook by country, and illustrates (as addressed in Chapter 5) how Korean shipbuilding industry began to show a market share of more than 20% in the late 1980s, and more than 30% since the 1990s. The Korean shipbuilding industry matured in the 1990s, and became a global leader. This growth of the industry is a consequence of the government's strategic

industrial development policies, and there is no reason to institutionally nurture the matured industry further.

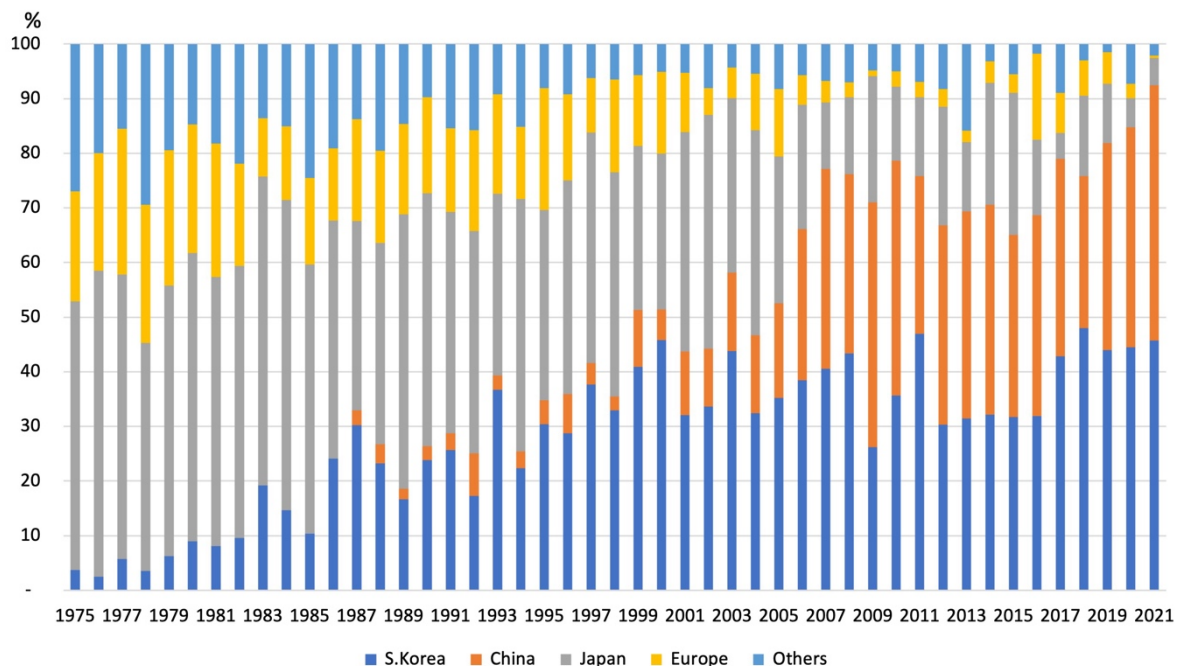


Figure 7.6 Global market share in new ships orderbook

Source: Shipbuilding Statistical Yearbook (1976-2022); Author's compilation and illustration.

The shipbuilding industry in Korea has experienced a shift in the nature of government interventions since the 2000s, with an increased focus being on sustaining its global leadership role. As previously noted, prior to the late-2000s, when the global shipbuilding industry was booming, the government had minimal direct involvement. However, after the global financial crisis in 2008, as the global shipping and shipbuilding industry faced recessionary challenges, the government began to intervene again. There are two main factors contributing to the recession, including reduced the volume of global ship orders and the growth of the Chinese shipbuilding industry. To address the recessionary factors (discussed in Chapter 5), the Korean shipbuilders diversified their products into high value-added ships and facilities, but as a result, they failed in terms of offshore oil rigs platforms, which has been a crisis not only for the industry but also for the firms. In order to tackle these problems, the Korean government began to intervene again in a similar way to how it had performed in the 1970s. For example, DSME one of Korea's large shipyards, expanded orders for offshore oil rig platforms to make up for sluggish orders stemming from the global shipbuilding industry slump from the mid-2000s. However, due to a lack of technologies and experiences, the firm has received orders that were beyond the company's capability, whilst problems such as the cancellation of existing orders and buyers' refusal to take over due to falling of oil prices in the mid-2010s led to massive losses in

excess of 3000%, and capital erosion (Woo, 2019). Furthermore, the bigger problem was that the actual loss was expected to be even greater because the company concealed their losses through accounting fraud from 2010 to 2015. With this level of operating loss, accounting fraud, and debt ratio, companies are disbanded in market-oriented countries, and the government involved into the things about side effects, such as mass layoffs and regional economic downturns. Nevertheless, the Korean government decided to inject public funds. The government's financial support for DSME amounted to about USD 11 billion between 2015 and 2017 (see Table 7.4). The government provided financial support through grant, capital, loans, and debt for equity swap through the (KDB) and The Export-Import Bank of Korea. Since the KDB became a major shareholder of DSME after the 1997 financial crisis, the support was provided through state-run banks. Due to the financial support and the recovery of the global shipbuilding industry, DSME has not gone bankrupt and is still maintaining its management activities whilst also being a leading global shipbuilding firm. However, the financial support for the insolvent company increased the risk exposure of not only state-run banks but also commercial banks at the time.

Table 7.4 Government financial support for DSME

Date	Amount of financing	Method of support	Financial support provider
October 2015	USD 3.6 billion	Government grant	Korean Development Bank: USD 2.3 billion Export-Import Bank of Korea: USD 1.2 billion
December 2016	USD 2.5 billion	Capital expansion	Korean Development Bank: USD 1.5 billion Export-Import Bank of Korea: USD 1 billion
	USD 2.4 billion	New loans	Korean Development Bank: USD 1.2 billion Export-Import Bank of Korea: USD 1.2 billion
March 2017	USD 2.5 billion	Debt-for equity swap	Korean Development Bank: USD 1.5 billion Export-Import Bank of Korea: USD 500 million Commercial Banks: USD 500 million

Source: Author's compilation from The Financial statement of DSME and ChosunBIZ, 4th June 2018.

The financial support provided to the insolvent company can be interpreted as an example of developmentalist intervention by the government into the private sector¹⁸. This is for two primary reasons. First, the lack of transparency in the decision-making process that led to the financial support. The financial support of USD 3.6 billion out of USD 11 billion was decided within a closed-door meeting, named a *Seobyolgwan* meeting, in the Blue House. The secret meeting was reminiscent of the EPB

¹⁸ Since the majority shareholder of DSME is KDB, there is a disagreement about viewing it as a private sector firm. However, in the 1999 Korea-EU shipbuilding industry dispute, the Korean government argued that DSME was not a public sector firm because of the basis of its establishment and function. This study concurs with this view and does not regard DSME as a public sector.

under the Park Chung-hee administration, and the *Seobyeolgwan* meeting has been held at the presidential office from 1997 to 2016. The meeting, attended by the president and other major economic bureaucrats, made decisions on injecting public funds into DSME in 2015. It is possible in any national system to provide financial support to struggling companies; however, the developmentalist practices found in the decision-making process were closed and not transparent. It can be inferred that injecting public funds into the insolvent company was secretly supported because of the lack of rationality under market economy conditions, and the fact that only the national economic elite made the decision that was done in the EPB in the developmental era exists to date. Second, the developmental attribute can be observed in the purpose of the financial support. DSME, as one of the major shipyards in Korea, accounts for a significant portion of Korea's shipbuilding industry, which, in turn, contributes significantly to Korea's exports and trade balance. In Korea's shipbuilding industry, the three large shipyards account for more than 80% of production, and if a large shipyard fail, the entire industry will be significantly affected. The government's decision to provide substantial financial support to DSME, without dismantling the insolvent company can be seen as an effort to protect the shipbuilding industry and minimise potential damage to the same. This reflects the developmentalist approach, prioritising the protection and promotion of key industries at the national scale, rather than focusing on individual companies' performances. Although the way of providing financial support may have changed from direct government grants to indirect support through financial institutions, the underlying purpose and decision-making process still exhibited developmentalist characteristics. Efforts to sustain the current position of the industry is a new role of the state within the variegated system of capitalism that underwent complicate qualitative shifts in the state's role with combination of the old and new developmentalist practices, thereby generate dynamic outcomes of post-developmentalism.

7.4.3 Addressing the global issues of the semiconductor industry in the course of globalised industrial ecology

Since globalisation and neoliberalisation, which are thought to have led to the evolution to post-developmentalism, corporate activities have expanded to a global scale. Rather than simply importing raw materials and exporting final products, production networks between countries have emerged with corporate activities becoming international in scale rather than being limited to corporate and national levels. In addition, some industries have increased in importance, and a phenomenon has arisen by which industrial and corporate activities are regarded as national economic and security concerns. For instance, competition in the semiconductor industry has expanded beyond tensions between companies to countries. As semiconductors have become a key component of all industries,

they have been used as a weapon, and a so-called 'Chip War' is presently taking place between countries where semiconductor lead firms are based (The Economist, 01 December 2018). In fact, companies may not even consider the nation in which they are technically based since they already operate across multiple countries; however, the issue surrounding semiconductors has escalated beyond mere competition and networks between firms, it has scaled-up into an arena of alliances and competition between countries.

US President Joe Biden issued executive orders to investigate the supply chains of four sectors, including semiconductors, shortly after taking office in 2021. The purpose of the investigation was to expand US semiconductor manufacturing production ability and facilities whilst also reducing dependence on Asian countries, particularly China. Accordingly, subsidies and tax benefits were presented to attract investment in the US semiconductor manufacturing industry. In 2022, the US tried to create the 'Chip 4 alliance' of major semiconductor lead countries. The participating countries are the US, Korea, Taiwan and Japan, and the ostensible purpose of the alliance is to strengthen semiconductor networks, but it is also actually a check on China's semiconductor industry (Financial Times, 30 September 2022). As shown in Table 7.5, the four countries can supply semiconductor design, production, and materials and thereby deliver global hegemony in the semiconductor industry. From the perspective of the Korean semiconductor industry, it may be advantageous to invest in US semiconductor production facilities and to participate in the alliance in order to have a stable supply chain and market. However, Korea also has to consider the benefits and alliance because more than 60% of Korean semiconductor are presently exported to China. In addition, Korean semiconductor firms, such as Samsung Electronics and SK Hynix, have production facilities in China; a factor that could lead to major disruptions in corporate operations due to the alliance with the US. As the US turned the semiconductor competition into a national competition, not a competition between companies, Korea was in an ambiguous position between the US and China. Taiwan and Japan joined the US-led alliance bolstering checks on China. Ironically, joining this alliance is going against neoliberal principles that ignoring market demand from China because geopolitical pressure; however, it is not a situation that the state can only focus on activities with comparative advantage. In the end, how the Korean state responds is another avenue by which to evaluate whether it presently operates within the post-developmental era.

Table 7.5 The Chip 4 alliance proposed by the US

Key players	Major role	Strengths
USA	Design	Hold all Electronic Design Automation (EDA) tools licenses Controls the market through tech giants
South Korea	Production (Memory semiconductors)	Giant semiconductor manufacturers (Samsung Electronics and SK Hynix)
Taiwan	Production (System semiconductors)	More than 50% of the world's semiconductor chips are made in Taiwan
Japan	Material and equipment	Supply key raw materials and equipment for semiconductor production

The semiconductor competition and alliance has rescaled intra-industrial competition, tension, and alliances to the national level, with the semiconductor industry being used as a means of expressing wider economic and trade dispute between countries, mainly the US and China. Under these circumstances, Korea was forced to participate in dispute between countries without any choice, and the Korean government had no choice but to intervene in the semiconductor industry. In response, the Korean government legislated and implemented comprehensive policies to foster and promote the semiconductor industry, such as the construction of new semiconductor-specialised industrial complexes, tax benefits, and infrastructure construction. These government beneficiary roles are reminiscent of the specific measures implemented over the industrialisation programme in the 1970s; however, they have now been undertaken more as a response to international dynamics rather than being an example of voluntary policymaking. This qualitative difference has resulted in this new interventional role of the state being viewed as more closure practices of post-developmental state rather than being an example of the developmentalist role of the state.

7.5 Conclusions

As the Korean developmental state has evolved, the relationship between the state and firms, as well as corporate strategy, has changed. Particularly, with the expansion of global value chains and global production networks, corporations no longer operate solely within single countries but engage in activities within complex global industrial ecosystems. In line with this, the role of the state has shifted from merely protecting and nurturing industries and enterprises to performing complex functions tailored to specific events. This changed role of the state is often referred to as the post-developmental role of the state as presented in Chapter 1 and has led to an adjustment in state-firm relations and in corporate strategy to some extent.

Despite these changes, the developmental legacy and path dependency can be found when one looks at corporate strategies. For example, both the shipbuilding and semiconductor industries

employ an internalisation strategy that seeks to manage everything from parts to final goods in-house. This strategy aims to minimise component imports and maximise the trade balance; reflecting developmental and neo-mercantilist intents. This approach has led to a consolidation of domestic production networks rather than active participation in GPNs; facilitating co-growth with domestic upstream and downstream industries. The persistence of the developmental corporate strategy suggests that rather than shifting towards market-oriented strategies with the emergence of post-developmentalism in Korea, the former have been sustained due to the unique context of Korea's experience of success with regard to industrial protection and nurturing strategies. Given this, it cannot be said that market-oriented corporate activities within a macro-context are plainly evident within Korean post-developmentalism. In terms of state-firm relations, the state's ongoing interventional role in the corporate can be observed. As shown with regard to the Korean shipbuilding crisis, the state prevented financially troubled companies from going bankrupt by providing direct financial support and handling the situation discreetly. This serves as an example of when the judgement of state elites can override market logic. and highlights the developmental state's capacity to intervene. In the semiconductor industry, some level of state interventional role for industrial protection has also been evident. The recent emphasis on the role of the state in addressing the global issue regarding semiconductors underscores the importance of the state in protecting domestic industries; a trend that is not unique to Korea but observed in major semiconductor-producing countries as well. These cases of state intervention in specific industry indicate that the emergence of post-developmentalism should not be understood merely as an increase in market roles and a minimisation of state intervention, instead, it should be evaluated and understood based on the reasons and rationality behind the state's intervention in the market.

It follows from this observation, that the evolution of state developmentalism into post-developmentalism is not a linear transition that is solely influenced by globalisation and neoliberalisation within industries and economies. In Korea, the legacy of state developmentalism has been sustained in corporate routines and systems, and there is still the ultimate goal of maximising exports. In addition to this, and with regards to industrial crises and global issues, the leading role of the state was seen to (once again) increase in order to protect firms and industries, which in turn sustained the nature of developmental state-firm relations to some extent. In this regard, evolution into post-developmentalism should not be seen as a clear departure from developmentalism over time, but rather seen as a phenomenon that has manifest in variegated forms of the evolution depending on issues and dynamic contexts.

Chapter 8. The changing role of the national state within central-local government relations

8.1 Introduction

The developmental state research has been conducted on policies that were promoted based on technological and economic rationality from the perspective of the central government and major actors at the national scale. With this state-centric approach, attention was paid to the political, social, economic, cultural, and historical processes and changes formed around the national scale to specify of East Asia state developmentalism. In the midst of active state-centric discussion, local was relatively marginalised, and what happened locally in the course of national economic and industrial development was returned to the state-centric discussions again. In other words, existing discussions on state developmentalism tended to dualise the relation between the state and the local and view it as a dependent relationship (Park and Gimm, 2013). The controversy over the state centrism of the developmental state research stems from, first, aspect that it is natural since the state is the subject of research (Hwang, 2016), and second, from the problem of recognising the state itself as an absolute actor. For example, state developmentalism has been explained on the premise that the developmental state is very hierarchical, and the state's capability and autonomy have significant impacts on local and regional level. Of course, it has already been elaborated on that the assumptions are not wrong when looking at existing developmental state studies in that Korean developmental state was a country that was hierarchical and could exert absolute influence until the 1980s. Nevertheless, regarding the assumption and the research results, two questions arise. First, in a hierarchical developmental state, was the local simply able to play subordinate roles? And second, has the capability and autonomy of the local government increased since the 1990s when the state's great capability and autonomy decreased? These questions are fundamental questions about the state centric state developmentalism research, and they are also questions about how the relations between the central and local government has changed in the course of the evolution to post-developmentalism.

This chapter deals with the local and region in the developmental state. The reason for focusing on local and regional issues is that the actual implementation of industrial policies covered in this study so far was on the local and regional scale. In so doing, it examines the centralised and top-down policy implementation cases led by the Korean developmental state and how it unfolded

geographically, including at local and regional level. It also discusses the processes of reorganising national state policy discussions and the results after decentralisation in the process of the evolution of the developmental state.

8.2 Local and regional development and the role of the developmental government

Over the past 60 years, Korea has undergone rapid industrialisation and national growth. This growth stemmed from the developmental approach, which was focused on efficient industrialisation and growth, and included national spatial strategies. A key growth strategy of the Korean developmental state was selective industrialisation, wherein the state not only chose sectors but also designated areas for nurturing those industries. In terms of the geographies of Korean industrialisation, the manufacturing industry was concentrated near major cities until the 1960s. The light industry sectors, which produced consumer goods for domestic consumption, required significant labour forces and easy access to markets, hence locating the production facilities near metropolitan area where these needs could be met. In the 1970s, many things changed, with government-led policy focusing on heavy and chemical industries, and discussions arising regarding the efficient utilisation of national territory. While the existing light industries considered labour mobilisation, the heavy and chemical sectors sought land resources to achieve mass production and maximise exports.

In this regard, the developmental spatial strategy involved designating target industries and then transplanting them to specific regions to create industrial hubs. This section delineates the state-led local and regional industrial development strategies for the industrialisation programme and how they unfolded in the shipbuilding and semiconductor sectors and what the roles of local and regional governments were at that time.

8.2.1 Centralised spatial strategies and marginalised local and regional governments

The conditions for the construction of industrial bases of the heavy and chemical programme, required them be located in coastal areas capable of accommodating large ships for entry and berthing. The area needed to be equipped with infrastructure such as ports, industrial water supply, roads, railways and power facilities. The sites had to allow for concentrated development of large-scale industrial complexes, and there was pressure to develop multiple regions simultaneously for different industrial types. In order to facilitate the efficient development of industrial complexes, a law was enacted in 1973, the Industrial Estate Development Promotion Act¹⁹ which prescribed methods and procedures

¹⁹ The Industrial Estate Development Promotion Act was enacted on 24 December 1973. The core of the act is that the law was established with the objective (Article 1) of promoting the development of industrial estates

to establish implementing bodies that would be responsible for the spatial unfolding of the heavy and chemical programme. The Minister of Land, Infrastructure and Transport was mandated to establish basic plan for the industrial estate development, and the act specified the entities responsible for implementing the industrial spatial project, including the central government, local governments and industrial estate development corporations. The implementing body of this project was required to formulate a plan for approval by the minister in order to enable the acquisition or use of land.

The reason why the government wanted to build centralised national industrial bases rather than simply locating industrial facilities is that, first, the central government sought to reduce overlapping investment in industrial infrastructure construction. Investment resources would be efficiently used by jointly using industrial infrastructure such as power, water, roads, and ports. Second, the government planned joint or adjacent locations with consideration being given to linkages between the target industries. The target industries designated by the government were not solely focused on exports, but also aimed to reduce the importing of intermediate and capital goods. This was designed to enable complementary linkages between different industries, and necessitated geographic proximity between industrial facilities to ensure the supply of materials. The results of the spatial concentration strategy of industrial development are shown in Figure 8.1. The figure summarises regional distribution of the key industries in Korea with a location quotient (LQ) of 2 or higher in each region as of 2023, and indicates which industries are specialised in each area. It indicates that Korea's heavy and chemical industries are concentrated in the southeastern regions, such as Busan, Ulsan, Daegu, Gyeongsangbuk-do, and Gyeongsangnam-do, following the heavy and chemical industrial bases construction strategy during the developmental era. This geographical concentration of such heavy and chemical industries has created concrete regional development path, later, resulting in regional lock-in on a specific industry and a company. For example, in the case of Ulsan, Hyundai Motors and HD Hyundai have established deep roots in the region, creating what is often referred to as the 'Hyundai Republic.' This not only indicates that regional development has been shaped around specific industries and company but also suggests a structure where the rise and fall of industries are closely tied to the fate of the region. In fact, the decline of Korean shipbuilding industry has directly led to Ulsan's stagnation in the late 2010s.

and water resources to actively advance the heavy and chemical industry and contribute to the economic development of the nation. The Minister of Land, Infrastructure and Transport designated industrial estate development zones (Article 5) with the approval of the Cabinet and the President to concentrate efforts on promoting the heavy and chemical industry (Korean Law Information Centre under Ministry of Government legislation, Accessed 10 November 2023, <https://www.law.go.kr/LSW/lsInfoP.do?lsiSeq=9354#0000>; Author's reorganisation and translation).

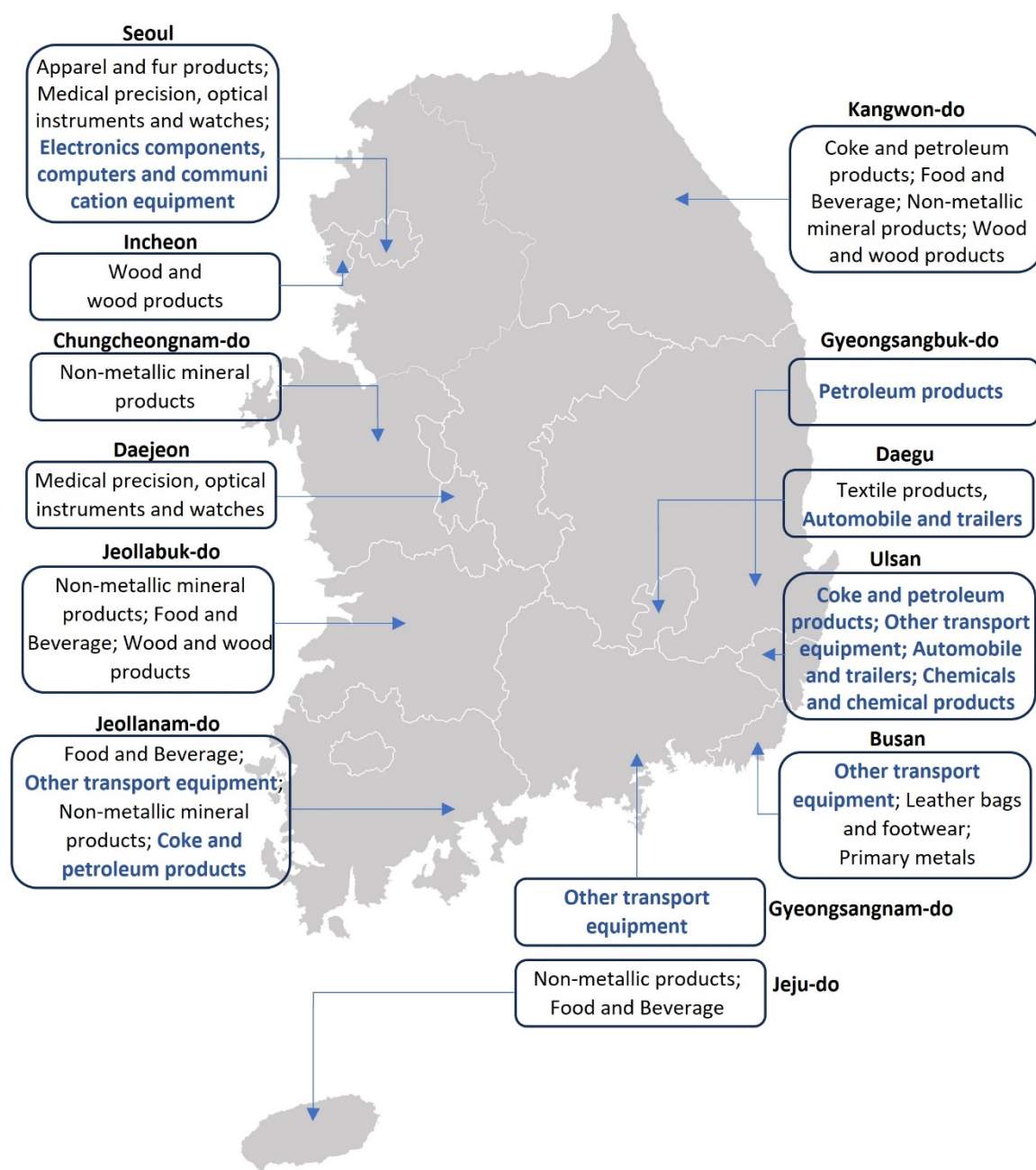


Figure 8.1 Regional distributions of the key industries in Korea

* The selection of key industries by region is based on industries with a LQ of 2 or higher as of 2023.

**The blue text inside the box means the industries selected as part of the heavy and chemical industrialisation programme of the Korean developmental government in the 1970s.

Source: Korean Statistical Information Service (Kosis.kr); Author's compilation and illustration.

The spatial strategy for industrialisation can be interpreted as granting exceptions to specific areas to provide legal support for targeted industries. The six strategic industries were regionally distributed, and within those regions, national industrial complexes were delineated and established under governmental exceptional management. In relation to this, Ong (2006) views these spatial

feature as post-developmental spatial strategies that physically demarcated exceptional spaces consistent with the neoliberal order and global capital circulation logic. This study, however, along with Park *et al.* (2017) contends that it is challenging to view the development of the industrial base for the heavy and chemical strategic industries implemented in the Korean developmental state as post-developmental spaces of exception. The reason for this is that the spatial strategies implemented in Korea were intentional applications of exceptions for economic growth and industrialisation, not exceptional spatial strategies to partially accept neoliberalism geographically. Given this, it is more fitting to regard the state's ability to create these exceptional spaces without social consensus and transplant specific industries into local spaces as developmentalist. By the same token, although FEZs in Korea can be viewed as examples of spaces of exception for partial application of neoliberalism as discussed by Ong (2006), a close examination of the logic behind FEZs' demarcation and zoning processes raises questions about whether they can truly be considered as part of a post-developmental spatial strategy. Considering the process by which the state creates spaces of exception, whether in heavy and chemical industrial bases or FEZs, it is evident that the developmentalist legacy remains deeply ingrained in Korea.

From a local and regional perspective, the developmental spatial strategy indicates that the pathways of local and regional industries were created and designated by central governmental policy decisions. Once local and region-specific development paths, distinct from those of other regions, were institutionally created and transplanted into the local context, local and regions can be developed by relying on the given path and its geographical path dependency. Such a developmental legacy creates a gradual evolutionary process rather than an abrupt transition to post-developmentalism as discussed in Chapter 2. In the case of the Korean heavy and chemical industrialisation programme, the focus on advancing large-scale industrial complexes and considering interconnections with targeted industries in other regions made it difficult for either the central or local governments to modify or de-lock from the established paths. As a result, there was a stronger tendency to conform to policy-created local and regional development paths and a heightened dependence on the central government. Furthermore, local and regions lacked the power to voice their opinions or participate in industrial or industrial base development plans. When the industrialisation programme and spatial strategies were implemented, heads of local governments were appointed by the president²⁰. Local autonomy in the Korean developmental state did not

²⁰ Local autonomy in Korea began with the enactment of the Local Autonomy Act in 1949 and the establishment of local councils in 1952. However, this process was interrupted for about 30 years due to political upheaval and was only fully implemented in the 1990s. Direct elections for heads of local governments were introduced in

effectively exist, and there was only the (central) government and its subordinate administrative districts. Regarding the spatial strategy of the developmental state, local governments could not exist independently, and the role of the local, as well as the central-local relations were not able to be established due to its marginalised status. As a result, the industrial paths and regional economic structures emerging today in those local and regions can be seen as products created by the Korean developmental state and its industrial and spatial strategies.

8.2.2 State selected areas: The national state-led industrial base construction strategy and the creation of a local industrial development path in the shipbuilding area

The first mention of the shipbuilding industrial base can be found in the report on the Four Major Core Factory Projects. According to a report submitted to the Minister of the EPB and the MCI in 1970, it was concluded that the heavy machinery industry and the shipbuilding industry should be viewed complementarily. It was deemed appropriate to establish the shipbuilding industrial complex, one of the major core factories, on the eastern coastal area, because of the need to consider links with the integrated steel mill in Pohang, Gyeongsangbuk-do, for steel supply and energy utilisation. The government's plan was not accepted as it was. Instead, Hyundai Engineering and Construction promoted the construction of a shipyard in Ulsan, which led to some adjustments to the original conceived plan. Ulsan, also located on the eastern coast, was chosen by Hyundai because the ground was solid and the water was deep, making it suitable for shipyard construction (Park, 2018: 313). In addition to this, the government promoted the large-scale construction of shipbuilding industrial bases. As the government designated the shipbuilding industry a core export industry, a couple of large shipyards were needed, and plans were made for an international scale industrial complex and base construction. Once the decision to build the shipbuilding industrial base was made, discussions as to specific locations took place. For example, President Park, prioritising national security, directed that the base should be located in the south²¹ (Woo, 2019). Given weight to considering the linkages

1956 but reverted to appointments in 1958. In 1960, all local government heads were elected by direct vote for the first time. Nevertheless, local autonomy regressed when local councils were dissolved, and heads of local governments were again appointed by the central government in 1961. Efforts to realise and return local autonomy resumed in the 1980s. The Chun Doo-hwan regime in 1980 mandated by law the timing of local council formations, and this was specified in the amended Local Autonomy Act in 1988. Based on this, local council elections were held in 1991, and local government head elections were held in 1995, marking the beginning of a fully elected local autonomy era (Ministry of the Interior and Safety, Accessed 23 November 2023, https://www.mois.go.kr/frt/bbs/type010/commonSelectBoardArticle.do?bbsId=BBSMSTR_000000000008&nt).

²¹ President Park Chung-hee directed the deployment of heavy and chemical industrial bases, including shipbuilding industry, to the south as much as possible. The reason lay in a consideration with relations with North Korea, and the need to locate industrial facilities as far away from North Korea as possible under the national security strategy. For this reason, major industrial bases were constructed in the southeastern coast of

with steel mills and the machinery industrial facilities, it was concluded that Ulsan, Busan and Geoje areas were suitable for the establishment of the shipbuilding industrial base.

To nurture and promote the industries, the spatial strategy of developing industrial bases in these specific areas was deemed a necessary strategy for the developmental state. As a late-industrialising country, Korea's geographically concentrated industrial development plan could mitigate various ancillary constraints and maximise economic benefits. Particularly, by concentrating shipyards in specific regions where natural conditions were significant, infrastructure costs for power, water, road, and ports could be reduced. Additionally, industrial clustering allowed for mutual cooperation between shipyards, co-developing of technologies, and co-educating human resources. Most importantly, the organic integration of shipyards enabled specialisation and alignment, thereby enhancing the international competitiveness of the Korean shipbuilding industry. For these purposes, the Korean shipbuilding industrial base was constructed with through efficiency and planning, and Geoje, Gyeongsangnam-do was ultimately chosen in 1973. This developmentalist industrial clustering strategy remains effective, leading to the construction of the shipbuilding material and equipment clusters near large shipyards by the central government (Woo and Lee, 2018).

Then, what role did the local government of Geoje²² play in the course of being selected as a shipbuilding industrial base? In the process of promoting the construction of the shipbuilding industrial base in Geoje, the first task at the local level was to purchase and compensate residents' assets in the development areas. According to the principle of beneficiary payment, this was the responsibility of the companies involved; however, local government was in charge of this task. Purchasing residents' asset was more complicated than expected as it required setting standards and valuing not only land and buildings but also tree, wells, and other detailed items to create a compensation plan. Naturally, residents opposed inadequate compensation plans, and handling these disputes was also the role of local government. When the central government suggested that land acquisition for the industrial base construction was not proceeding well, it demanded the Governor of Gyeongsangnam-do take active measures in the responsible area. In turn the Governor required the Mayor of Geoje to report every morning on the issues arising within the area due to the construction

Korea.

²² The current Geoje was established with the administrative district adjustment in 1995. During the 1970s, when the construction of the shipbuilding industrial base was underway, the present-day Geoje was divided into Geoje and Jangseungpo. Due to the reorganisation of administrative area, these two local units were merged into one. In this study, Geoje refers to the area encompassing both areas, even the period before 1995, because to avoid confusion caused by administrative district names and because the industrial policy itself was planned on a scale that encompass both areas.

of the industrial base (Park, 2018: 351). Ultimately, the role of the Geoje local government amidst the construction of the shipbuilding industrial base was limited to executing practical tasks at the local level to ensure the smooth progress of the central government's plan, rather than taking a leading role in the development. Moreover, its actions were carried out according to the vertical chain of command from the central government to the provincial government and then to the local government. Such vertical chain of policy implementation, while not as pronounced as during the developmental state, is still present. This is because, as discussed in Chapter 6, state-led industrial policies effectively remain, and more importantly, the fiscal structure between national and subnational state is still centralised in Korea.

The development of the shipbuilding industrial base to nurture heavy and chemical industry in Geoje was a major event that determined and created the local development path. Previously devoid of secondary industries, Geoje became a shipbuilding industry hub with two large shipyards, and approximately 80% of the local economy became dependent on the shipbuilding industry. The process of creating Geoje's regional development path was almost entirely under the central government's plan, with little participation from other actors. Unlike other major industrial targeted cities, Geoje was merely a fishing island village with no capitalist influenced by the Imperial Japan or individual engaged in business activities. This lack of political and economic experience in creating an industrial path contributed to the central government's dominance. Additionally, during the creation of the local development path for the shipbuilding industry, the locality and region along with their residents were excluded, with the local government only performing practical roles to ensure that central government's decisions were implemented smoothly. The creation of state-led local development paths subsequently forms strong path dependence on the shipbuilding industry, leading to cognitive and political lock-in that hinder the evolution toward post-developmentalism, which will be discussed later in this Chapter.

8.2.3 Firm selected areas: the development of the semiconductor industrial base

The development of the semiconductor industrial base exhibited a different path. The Korean government, in line with its heavy and chemical industrialisation programme, also identified the electronics industry as a strategic industry and began to foster it under government leadership. Unlike the current semiconductor industry, which was developed in the Seoul metropolitan area, the electronic industrial base was initially constructed in Gumi, Gyeongsangbuk-do, as an export-oriented strategic industry. Due to the nature of the electronics industry, coastal areas were disadvantageous for electronics device manufacturing because the salty winds could affect the production process

(Hwang and Park, 2014). In contrast, Gumi, an inland area, was considered an optimal location for producing precision electronic products. Furthermore, its proximity to a large river made it advantageous for securing industrial water, and it had a well-established industrial infrastructure with railways and motorways. Gumi, however, served more as an electronics assembly industry base rather than being a semiconductor production base. Nonetheless, the early semiconductor technology in Korea was researched and developed at the Korea Institute of Electronics Technology (KIET) which was located in Gumi, and also housed a host of manufacturing facilities.

The true semiconductor production base in Korea is considered to be in Yongin and Suwon in Gyeonggi-do. These two local areas were not originally associated with the semiconductor industry; rather, the area near Seoul and Gumi were the initial semiconductor hubs. However, the production scale in these initial areas was not substantial, and they were primarily involved in assembly tasks rather than the production of semiconductor chips themselves. Given this, it would be somewhat inaccurate to consider them as semiconductor industry hubs by today's standards; they did not serve the role of being a semiconductor production base. Following the continued success of research and development at KIET, the electronics companies began to consider investing in semiconductor production. Samsung Electronics entered the semiconductor business in 1974 by acquiring a semiconductor company near Seoul. After repeatedly succeeding in developing 64K DRAM, Samsung Electronics decided to build a larger factory and began searching for a suitable site. At that time, Samsung Chairman Lee Byung-chul, who had just made the so-called Tokyo Declaration²³, emphasised his management philosophy of *Saeopboguk*²⁴ (business patriotism), underscoring the need to foster the semiconductor industry. Samsung Electronics chose Yongin, considering its proximity to Seoul

²³ On 8 February 1983, while on a trip to Tokyo, Samsung Chairman Lee Byung-chul called the president of the JoongAng Ilbo (a formerly Samsung owned daily newspaper) and instructed him to publish the statement, "No matter what anyone says, we must pursue the semiconductor business," as soon as possible. A month later, the newspaper officially published the declaration titled "Why We Must Enter the Semiconductor Business." Samsung declared that due to the national necessity and the current stage where Korea could compete in the global market, the development of the semiconductor industry was essential. This endeavour was not just for the benefit of the company but a path to changing the future of the country (Samsung Newsroom, 25 March 2010, <https://news.samsung.com/kr/87>).

²⁴ It is business patriotism to refer to benefiting the nation through business activities, and embodies the intention to contributing to the country and society through corporate management. In a severely resource-scarce Korea, the integration between livelihoods, economy and politics was believed to be the only way to escape from economic tragedy. It suggests that people each have their own abilities and strengths, and finding work that allows them to maximise those capabilities is both a service and a responsibility to the state and society (Economy Insight, 01 February 2023). This study views this as the developmental management philosophy, where chaebol that grew with the benefits of the state prioritise national interest over private gain in their business activities to repay the country. This philosophy primarily belongs to the first generation of chaebol founders but can still be found today. For instance, an exterior wall of HD Hyundai in Ulsan bears the slogan, "*Our success is the nation's success, and the nation's success is the path to our success.*"

(within an hour), ease of importing raw materials and exporting finished products, and low construction costs. Finally, in 1983, Samsung Electronics established its production facility in Yongin (known as Giheung campus), and in the following year, the company completed Production Line 1 and began mass-producing 64K DRAM.

In the process of semiconductor industry growth in Yongin, no prominent spatial strategy from either the central or local government is evident. Nevertheless, the central government aimed to foster the semiconductor industry itself. In 1980, the MTI decided to support the export-oriented development of the semiconductor and computer sectors with a national investment fund of KRW 10 billion. Additionally, the government formulated a Semiconductor Industry Promotion Plan to achieve an 80% domestic production rate of computers and chips through the structural advancement of the electronics industry (Park, 2021: 242-243). Regarding semiconductor technology development, the government proposed a principle of cooperation between the state and the private sector. Unlike the shipbuilding industry, which was managed almost entirely under the centralised control of the central government, the semiconductor industry adopted a dual strategy of national and private sectoral development. The central government's active stance on the semiconductor industry was intended to encourage large corporations, which had been passive, to actively engage in research and development. While the entrepreneurial spirit of Samsung's chairman played a significant role, it can be said that the government's proactive stance was also a crucial factor. Specifically, the combination of the government's plans and Samsung's developmental business philosophy allowed the company to independently establish spatial strategies which fostered the semiconductor industry without more direct and active government intervention.

8.3 An increased role of local governments in Korean post-developmentalism?

When discussing the shift to post-developmentalism, the 1990s is often considered to be a turning point. Economically, many policy directions and tools changed following the 1997 financial crisis, and led to a national development pattern that was distinct from developmentalism. For local governments, the resumption of direct elections for local government heads in 1995 is seen as a major turning point, and marked a decreased role for the central government, power devolution, and the realisation of local autonomy. The timing of economic reforms and the revival of local autonomy indicates that the Korean post-developmental state is characterised by reduced state intervention and an increased role for local government. While this is theoretically and institutionally true, it does not hold in practice due to the institutional and economic entrenchment of local and regional

development paths set by the developmental government, and the continued presence of national strategic industries. This section elaborates on how and to what extent the role of local and regional governments has changed in Korean 'post-developmentalism', using the cases of the shipbuilding and semiconductor industries.

8.3.1 The relationship between the central and local government after the implementation of local autonomy

Conceptually, local autonomy refers to the residents of a specific local and region within a country making and managing public affairs related to that local and region on their own (Cho and Lee, 2021). This definition implies that the operation of local government should be carried out through the will and participation of local residents, and that a separate public entity within the state is entrusted with certain powers and resources to autonomously govern local administration. In other words, local autonomy necessarily presupposes the existence of local government distinct from the central government. Since the implementation of local autonomy in 1995, successive governments in Korea have, to varying degrees, prioritised decentralisation and devolution. Nevertheless, upon closer examination, it becomes evident that this focus has primarily addresses micro issues such as who is responsible for administrative services to residents. The macroscopic policies and budget related to local and regional development remains largely within the purview of the central government. While the introduction of local autonomy shifted some administrative service responsibility from the central government to local governments, the role of the central government and its relationship with local government in terms of industrial and economic policy have not significantly changed.

For local autonomy to be effectively implemented, it must be supported by corresponding independent financial resources. In a broad sense, the transfer of power includes fiscal devolution in which the central government must transfer its tax revenue to local government to enable the latter to achieve functional independence. In Korea, the allocation of financial resources between the central and local government is deemed insufficient to fully support local autonomy, not only that, but the local governments are also not expected to compete for projects. Figure 8.2 illustrates data representing the changes in the proportion of national taxes and local taxes revenue between 1970 to 2021. Before the implementation of local autonomy, the proportion of local taxes revenue was around 10%. Although this increased to about 20% after the implementation of local autonomy, tax resources remain heavily concentrated at the central level. If the tax revenue distribution is split approximately 80:20 between the central and local governments, then the expenditure of the central and local government should also exhibit a similar pattern; however, a significant portion of total tax

revenue is transferred to local governments. Table 8.1 presents data on the amount and ratio of local transfer resources relative to total tax revenue. It shows that since the implementation of local autonomy system, the scale of resources transferred from central government to local government has increased significantly. This indicates that while the central government holds an overwhelming advantage in revenue collection, local government is utilising a larger portion of these resources. From the perspective of local government, this reflects a reliance on central government funding, and suggests a lack of fiscal autonomy. This concentration of fiscal authority within the central government creates a vertical fiscal imbalance between the central and local government, and limits the ability of local government to independently formulate and implement policies.

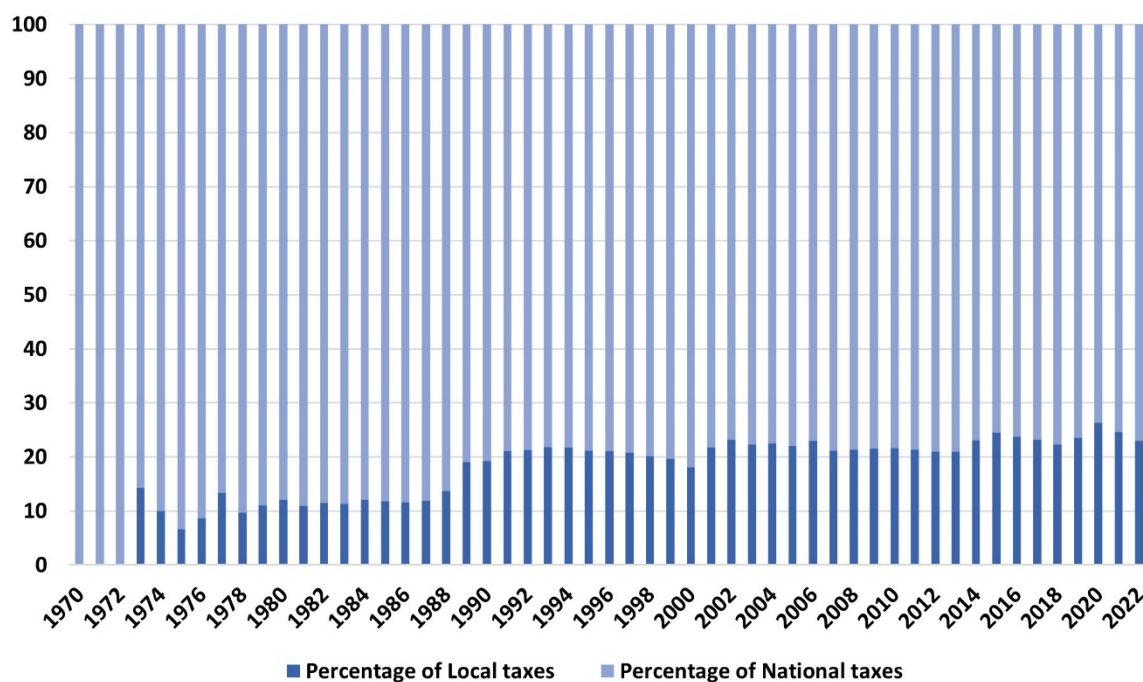


Figure 8.2 The changes in the proportion of national and local revenue (1970-2022)
Source: Korean Statistical Information Service (Kosis.kr); Author's compilation and illustration.

Conceptually and institutionally, the Korean state has sought to reduce the authority of the central government and implement local autonomy; however, even if local government authorities have the authority, their ability to formulate independent industrial and regional development policies is limited due to central government's dependence on fiscal structure. This limitation raises doubts as to whether Korea has evolved into post-developmentalism at local and regional levels. During the developmental era, the absence of institutional frameworks for local autonomy and political instability made local autonomy impossible. Post-developmental era, on the other hand, seems challenging for local autonomy for fiscal and economic reasons. Furthermore, even if local autonomy is implemented,

there is doubt as to whether local residents' perception of local autonomy aligns with the theoretical concept of it. According to a number of informal interviews with residents conducted during the fieldwork period of this study, the general opinion was that 'local autonomy should naturally be implemented, but the central government must actively intervene to prevent the local economy, industry and population from stagnation in advance.' This view was commonly observed in both within shipbuilding regions where policy-driven local development path has been created, and semiconductor industry regions, where corporate-driven local development paths have been established. It can be inferred that the concept of local autonomy in Korea is embedded with the developmental mindset. Despite the theoretical and policy orientation towards post-developmental local autonomy, it is evident that the legacy of the developmental state remains in reality.

Table 8.1 The amount and ratio of local transfer resources relative to the total tax revenue
(KRW trillion)

	1995	2005	2015	2020	2021	2022	2023
Local transfer resources (A=a+b)	18	55	121	195	208	239	218
- Grants (a)	14	44	75	108	122	156	137
- National Subsidies (b)	4	11	46	87	86	83	81
Tax revenue (B)	72	114	163	227	289	388	457
Ratio of Local transfer resources to Tax revenue (A/B*100)	25%	48%	74%	86%	72%	62%	48%

Source: Open Fiscal Data of Korea (<https://www.openfiscaldata.go.kr/op/en/index>); Author's compilation.

8.3.2 The passive role of the local government in areas dominated by the shipbuilding industry

Localities and regions where the developmentalist central-local relationship remains particularly strong are those associated with the shipbuilding industry. It has been analysed that this developmental legacy re-emerges and strengthens, especially during period of industrial decline. The Korean shipbuilding industry began to decline following the global financial crisis in 2008, as the number of ship orders dropped sharply globally (see Figure 5.3). After peaking in 2007, the industry experienced a decrease in shipping demand due to the global financial crisis, and it took about 7 years for this impact to reach local shipyards. Despite the projections of a downturn in the shipbuilding industry, no significant measures were taken because the existing backlog of orders kept production running smoothly. However, when this backlog diminished in 2014, local and regional economies started to experience a significant downturn. Additionally, China's strategic national policies to

nurture its shipbuilding industry led to the absorption of ship orders that had previously gone to Korea. As a result, the regional economies of the Korean shipbuilding regions suffered substantial setbacks. Figure 8.3 illustrates GRDP per capita of Geoje, and shows a significant decline from the mid-2010s when the downturn in the shipbuilding industry impacted the local economy. Notably, it took only 5 years for the downturn, which had substantially exceeded the national and Gyeongsangnam-do GRDP per capita, to drop to levels almost on par with the averages. This indicates that the local economy rapidly plunged into recession within a short period.

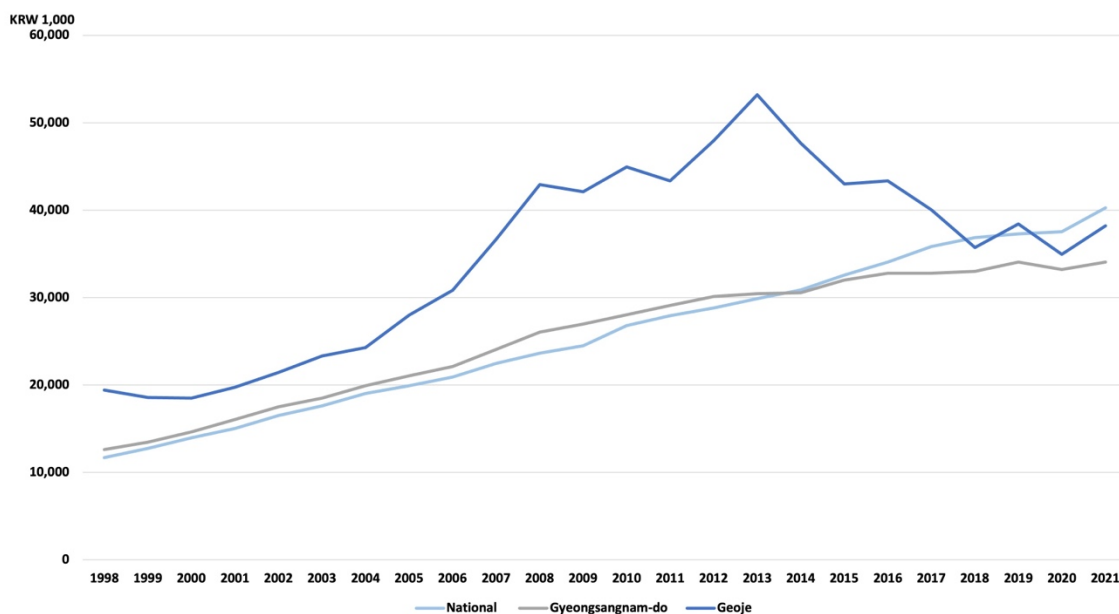


Figure 8.3 GRDP per Capita (1998-2021)

Source: Korean Statistical Information Service (Kosis.kr); Author's compilation and illustration.

Such a rapid local economic downturn was due to the significant impact that the shipbuilding industry has on the local economy and industrial structure. For instance, from 2010 to 2020, the value-added by the shipbuilding industry accounted for an average of 76% of the total value-added in Geoje (KOSIS, data collected 23 January 2024). This indicates that the shipbuilding industry alone can almost entirely explain the local economy. In addition to this, a significant issue lies with the local SMEs that supply shipbuilding equipment and materials. These companies primarily supply parts to local shipyards, and therefore do not engage in independent technological development or exports. According to a report by the Gyeongnam Institute in 2021, 92.3% of equipment suppliers in Geoje did not export at all and delivered their products solely to one of the two major local shipyards. Furthermore, only 4.4% of these companies produced items other than shipbuilding and marine equipment (Gyeongnam Institute, 2021). This means that Geoje's industrial structure has developed subcontracting networks centred around the two major shipyards. These SMEs conduct business

almost exclusively with these shipyards and have minimal involvement in exports or connections with other industries. This manifests as a functional lock-in to large shipyards, where SMEs operate in ways that maintain their existing contractual relationships with major shipbuilding companies rather than fostering their own innovation and self-sufficiency. Additionally, a cognitive lock-in is also evident, as their dependence on large shipyards stems from a strong belief that the Korean shipbuilding industry will never fail due to the government support (Woo, 2019). Consequently, their capacity to respond to industrial crises through diversification of industries, products, or clients is significantly limited.

Rather than diversifying their local industrial and economic structures from dependency on a single industry, Geoje seems to be waiting for crises to be swiftly resolved in the hope that the structure will quickly stabilise once again. Throughout this process, the local government and communities are looking towards the central government for proactive measures. For instance, in the case of the DSME issue, both the central government and the KDB hoped for a quick sale of the company to attempt stabilise its management, however, the locals had a different perspective. According to an interview with a representative of Geoje local government,

Q: In the case of the DSME, everyone hopes for its operational stabilisation, and there are those who wish for someone to acquire it, thereby escaping the influence of the KDB. Even the KDB has been trying to sell DSME for nearly 20 years. Was the regional sentiment greatly disappointed when the EU rejected the M&A?

A: Not really, on the contrary, the atmosphere was more favourable its result. If DSME merges with Hyundai, what do you think will happened to Geoje? Most likely, Ulsan will become the main hub, and Geoje will be pushed into the background. Although Samsung is also present, having two out of the Big 3 shipyards in the world is a significant asset for our local area. However, losing one of them would be a considerable disappointment for us as a representative region of the shipbuilding industry.

(Interview with Geoje local government, 20 April 2022; Author's translation)

They welcomed the normalisation of the local shipyard but rejected the potential side effects. In other words, they believed that sustaining the current state would be preferable not to experience negative repercussions. The main reason for this judgement is cognitive lock-in from the fact that the central government intervention can resolve issues and maintain the current stable condition as discussed in Chapter 7.

Geoje's desire to sustain its current industrial structure can be understood as a manifestation

of path dependency in its developmental local development path. The local industrial trajectory was created according to the developmental plans and has become so locked-in that Geoje cannot be locked-out to any other local development path or industrial structure beyond shipbuilding. The issue is that the entity responsible for creating this path was the national state, and this has led to a strong perception that the solution to any problems must also come from the central government. In other words, the common belief held by both local government and residents of Geoje is that the issue of local stagnation is not a problem for or of the 'local industry' but a problem of a 'national-strategic industry', and that the state must, therefore, actively intervene to solve it. This cognitive lock-in can be found in an interview with residents working for a shipyard in Geoje:

Q: I have interviewed many residents of Geoje, and there is a common view that Geoje's crisis began after 2007. This is because they see the performance of the Korean shipbuilding industry as having peaked in 2007 and then continuously decline. Why haven't SMEs or workers come up with alternative business ideas over the past 15 years?

A: The shipbuilding industry is a major national industry, so rather than responding to its downturn by ourselves, shouldn't the state policy help prevent it from declining? We have worked in the shipbuilding industry for the past 30 years, and we have never considered giving it up to look for something else. Since it (the shipbuilding sector) is a major national industry, it is only right that the state should support it. We should simply follow that lead and focus on building good quality ships even more diligently.

(Interview with Geoje residents working for a shipyard, 23 April 2022; Author's translation)

In such a situation, the primary task of local government is to continually prove that Geoje is indeed in crisis and to request assistance from the central government. In 2018, the government designated Geoje and other shipbuilding regions as Industrial Crisis Response Special Zone²⁵ under the Special Act on Balanced national Development, and thence provided these areas with extensive policy support in terms of finance, taxation and employment. This designation is subject to reassessment every two years for potential renewal. Rather than focusing on overcoming the industrial and local economic crisis, local government has primarily concentrated on efforts to secure re-designation under the

²⁵ The Industrial Crisis Response Special Zone is a special disaster area in the economic and industrial sector where the central government can promptly provide support in response to large-scale business closure and unemployment caused by economic crises such as industrial restructuring. On 31 October 2016, as part of measures of shipbuilding -concentrated areas, the legal basis for introducing the special zone was established through an amendment to the Special Act on Balanced National Development, to prepare for cases where crises in specific industries like automobile, steel, and petrochemicals negatively impact the overall national and regional economy.

programme. At the same time, the central government has also made efforts to ensure that these regions are re-designated. According to an interview with a regional economic analyst,

“The central government has relaxed the requirements for re-designation or created exceptions to continually designate these areas as special zones. Both the local and central governments aim to manage the shipbuilding regions through this programme. The local governments, in particular, has gone so far as to submit petitions to the central government, insisting that without re-designation, the local SMEs that have benefited from tax deferrals would bankrupt.”

(Interview with a Regional Economic Analyst, 27 April 2022; Author’s translation)

From examining the case of Geoje, it can be observed that the shipbuilding industrial area, strategically developed by the developmental heavy and chemical industrialisation programme, has seen a significant role played by the central government from the creation of the path to the present day. At the same time, the local government’s role has primarily been to monitor the current economic situation and urge the central government to enact measures to ensure the stability of the existing path. It follows, that despite the emergence of post-developmentalism and the implementation of the local autonomy system, there remains a strong dependence on the central government, with few significant changes have occurred in either the role of local government or central-local government relations.

8.3.3 The proactive role of local government where the semiconductor industry settles down

The local governments in semiconductor industrial areas, unlike the shipbuilding areas, appear to play a more proactive role. In the case of the semiconductor industry, all of the three roles of the central government, firms, and local government are prominent in addressing global semiconductor issues rather than dealing with the aftermath of shipbuilding industrial downturn. In particular, the local government has devised strategies to expand the existing local semiconductor industries by establishing semiconductor industrial complexes aimed at co-locating materials, parts, and equipment with the same local area due to semiconductor materials and parts become significant in the semiconductor GPNs. The ability of semiconductor regions to establish more proactive plans is attributed to their higher fiscal independence rate compared to other regions. Figure 8.4 illustrates the fiscal independence rates of regions, and shows that Gyeonggi-do, which includes the case study local areas of this research, has a fiscal independence rate of approximately 70%. Looking at this local scale, the semiconductor case areas, Suwon and Yongin, account for about 65%, whereas the shipbuilding area, Geoje, accounts for only 25, as of 2023 (KOSIS, data collected 23 April 2024). This suggests that the local government has the capability to independently formulate and execute

macroeconomic and long-term plans. In contrast, Gyeongsangnam-do, where the shipbuilding industry dominates, has a fiscal independence rate of about 40%. This indicates that without fiscal assistance from the central government, its ability to independently make decisions and implement plans is relatively limited.

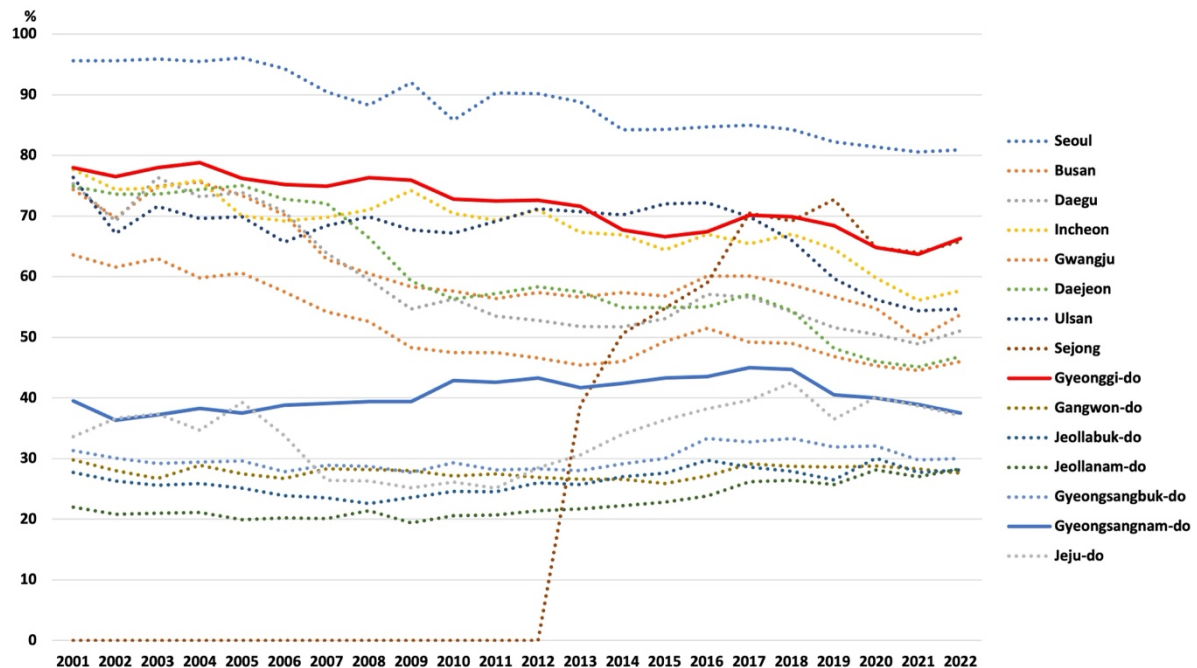


Figure 8.4 Fiscal independence by province in Korea (2001-2022)

Source: Korean Statistical Information Service (Kosis.kr); Author's compilation and illustration.

In terms of recent movements between the central and local government, the Korean government is considering establishing a new semiconductor industrial complex in the Seoul metropolitan area (The Government of Korea, 2023a). Along with the US restructuring its advanced technology supply chain, there is a view that having semiconductor production bases domestically will enhance Korean semiconductor global competitiveness. According to an unpublished government report in 2023, government officials are discussing the establishment of a new semiconductor industrial base, and among several candidate sites, the Seoul metropolitan area has been selected (The Government of Korea, 2023b). This selection is based on the consideration that providing land in the Seoul metropolitan area, where talent apply is abundant, will increase the attractiveness of new investments. Specifically, the central government wishes to create a comprehensive semiconductor industrial cluster includes not only existing major semiconductor companies but also materials, components, equipment and fabless companies. Regarding this plan, the local government's proactive stance is evident. According to an interview with local government conducted about the national state-led plan,

Q: Regarding the construction of the semiconductor cluster, the central and local governments share a common perspective. Moreover, the central government is showing a move towards deeper policy involvement. If this area becomes a national industrial complex rather than a general industrial complex, it will come under the central government's control. In that case, won't the local government face the issue of being sidelined from this plan?

A: While it is true that the role of the central government increased in terms of the semiconductor cluster, we (Yongin local government) do not believe that our role has diminished. The semiconductor cluster itself originated from our plan. Initially, our plan was to establish a cluster centred around SK Hynix by co-locating semiconductor materials, parts and equipment companies in Yongin. This plan has just expanded into a national project due to the global semiconductor issue. Therefore, the expansion of the plan is based on our original plan, and even if it becomes a national industrial complex in the future, the central government will only be the managing entity. The industrial cluster itself can still be seen as developing under the leadership of Yongin.

(Interview with Yongin local government, 11 October 2022; Author's translation)

There is a macro-level government plan pertaining to semiconductor cluster, the Establishment of Specialised Complex for National High-Tech Strategic Industry²⁶. This plan aims to designate and foster specific sectors as strategic industries, and it also includes a spatial strategy which intends create specialised industrial clusters for these industries and establish them as national industrial complexes and will also providing infrastructure development and tax benefits (The Government of Korea, 2023a). For the semiconductor sector, the plan aims to encourage investment from private companies by making exceptions to the Factory Location Limit System of Seoul Metropolitan²⁷ and locating the industrial facilities in the metropolitan area. This industrial and spatial

²⁶ The policy for the Establishment of Specialised Complex for National High-Tech Strategic Industry was announced on 15 March 2023, when the government unveiled the candidate sites for national industrial complexes. The Korean government announced plans to develop 15 candidate sites across the country to promote future high-tech strategic industries such as semiconductors, displays, secondary batteries, biotechnology, future cars, and robotics. Once designated as national industrial complex, these sites will receive comprehensive benefits, including expedited permitting process, infrastructure development, and tax incentives (Published Government Document, 19 October 2023).

²⁷ The Factory Location Limit System of Seoul Metropolitan, as stipulated by Article 18 of the Seoul Metropolitan Area Readjustment Planning Act, allows the Minister of Land, Infrastructure and Transport to set a total permissible limit on the establishment and expansion of factories to prevent excessive concentration in the Seoul metropolitan area. The Ministry sets the total permissible factory building area every 3 years and allocates this quota annually to each province, city and county (National Archive of Korea, Accessed 12 December 2023, <https://www.archives.go.kr/next/newsearch/listSubjectDescription.do?id=010471&pageFlag=&sitePage=>).

policy closely resembles the developmental industrial and spatial strategies. First, it involves the state-driven selection of strategic industries and policy decisions aimed at nurturing their growth. Second, it includes a spatial strategy aimed at developing specific regions into specialised areas for these industries. This approach is not about local government independently building their capabilities to develop industries and their economies, but rather about top-down local and regional industrial development path transition and creation being repeated. Despite local government's fiscal capacity and will for autonomous development, they have been unable to play a leading role. Furthermore, about a year after the interview with Yongin local government, the announcement of the national state-led high-tech industrial development policy is likely to further reduce the role of the local government. All of this suggests that the developmental industrial and spatial strategies are still present in Korea, even though the target industries have changed.

8.4 Conclusions

After the central-led industrialisation policies of the developmental state, Korea experienced political maturation and economic crises. These led to the evolution of state developmentalism. In relation to this evolution, the emergence of the post-developmental state led scholars to assume that many things had changed into liberalised ways, one of which was the shift from central-led to local-led governance. Coincidentally, in the mid-1990s, a period marked by significant changes to post-developmentalism in Korea, the local autonomy system was fully implemented, and established a dichotomy in which centralisation was seen as feature of state developmentalism, and decentralisation was seen as characteristic of post-developmentalism. While it is true that post-developmentalism is characterised as being more decentralised and stressed urban entrepreneurialism than developmentalism, it is questionable whether the implementation of local autonomy and the increased role of local government in Korea represented a transformation significant enough to be considered to be a complete shift to the post-developmental state.

The remnants of state-led industrialisation and spatial strategies still persist in Korea. The Korean government implemented spatial strategies alongside its heavy and chemical industrialisation programme. By fostering specific industries, the government sought organic linkages between targeted industries and regional development by locating those industries in designated regions. This approach resulted in the central government creating and imposing local industrial development paths, which consequently diminished the role of local government in terms of local and regional development. For example, Korea's shipbuilding industrial regions exemplified areas developed

through the heavy and chemical industrialisation programme and its associated spatial strategies. The local area, which originally had no specific industrial development path, was transformed into a leading shipbuilding region through policy interventions. In this process, the role of local government was merely to carry out the directives of the central government, and they did not significantly contribute to creating of either local or regional industrial paths. The semiconductor industry presents a somewhat different scenario. Although there were government policies to promote the semiconductor industry, few specific spatial strategies accompanied these policies. Instead, chaebols implemented their spatial strategies and preferred both locations close to Seoul and the establishment of large-scale semiconductor manufacturing facilities in the southern part of Gyeonggi-do. In this process, the role of local government was also not prominent, and the spatial strategies of chaebols were more critical in aligning with national state policies. Ultimately, it cannot be said that local government played a leading role in Korea's industrialisation or its local and regional development processes. The role of local government was limited to administrative procedures for providing locations, which indicates their minor role in these processes.

The reasons for legacies of state developmentalism still prominently appear in the so-called Korean post-developmental era in terms of local and regional development path dependency and creation are two folds. First, examination of the fiscal structure between central and local government, reveals that many local and regions are dependent on the central government. In Korea's tax system, the ratio of national to local taxes is approximately 80:20, which severely limits the revenue that local government can collect. As a result, local government has to rely on grants from the central government which led to a high level of financial dependency on the same. Except for Seoul, metropolitan cities, and parts of Gyeonggi-do, the financial independence rate is below 50%, making it financially challenging for local government to implement long-term independent projects for both local and regional development path adjustment and creation. From this, it becomes evident that local government is dependent on the central government for various initiatives. For instance, during the mid-2010s, and amid the downturn in Korea's shipbuilding industry, local government did not seek new paths or modification to the current path in response to the industrial decline. Instead, they desired to maintain the status quo and called for the central government to sustain it. In so doing local government showed its reliance on the existing industrial development path and central government's active intervention.

Second, and with reference to national strategic industries, there is a tendency for the state to elevate issues to a national scale and intervene. Just as the Korean developmental state designated industries beneficial to national interests as strategic and intervened directly, this approaches still

persists today. While heavy and chemical industries were the focus of strategic nurturing in the past, high-tech industries are now the strategic targets. For example, in the semiconductor sector, local government was leading the creation of industrial clusters in which large companies and SMEs could co-locate; however, with the global semiconductor issues, the central government scaled this initiative up to a national level project. Consequently, capability and willingness of local government units were sidelined, and the plan was shifted to a central government-led industrial cluster construction that led to qualitative shift in state developmentalism. Even if individual units of local government are competent, they can be pushed aside when the central government decides to intervene; a situation which lead to a significant reduction in their role. While central-local relations in Korea are not as rigidly top-down as in the developmental state, local government often seeks top-down interventions, and the state occasionally implements such interventions as needed, sustaining the dynamic.

In terms of local and regional development and central-local relations, the evolution from state developmentalism to post-developmentalism in Korea appears to have been a slow process. Institutionally, while local autonomy is guaranteed, the actual scope of work that local government can independently carry out is limited. This is particularly true in regions with experiences of state developmentalism where the ability to create new paths is restricted, and there are often few recognitions of the need to undertake such tasks which lead to a more dependent relationship on the central government. Although this has not been uniformly observed across all regions, the remnants of developmental legacies still persist in various local and regional areas. Thus, at a national scale, the emergence of post-developmentalism in terms of central-local governance can be understood as gradual and regionally uneven in Korea, which in turn reflects an emerging form of post-developmentalism that cannot be neatly categorised and periodised.

Chapter 9 Conclusions

9.1 Reflection of the dissertation's overall arguments and research questions

Behind Korea's miraculous growth has always been a strong and autonomous state. As an archetype the developmental state, Korea has gone beyond merely correcting market failures to actively shaping and distorting markets to ensure national growth. Nevertheless, this role of the state has undergone qualitative shifts due to internal political and economic maturity as well as external impacts such as globalisation and neoliberalisation. Claims that state developmentalism has begun to be usurped or surpassed by the emergence of post-developmentalism have been discussed in Chapter 1 and 2. Critically examining the conventional discussions on the transformation of the Korean developmental state, this dissertation analyses the process and dynamics of Korea's change from state developmentalism to post-developmentalism from the EEG framework blended with the GPE approach, and examines how post-developmentalism has manifested and unfolded in Korea with a specific focus on two industries and its local areas: shipbuilding and semiconductors.

Since the 1960s, Korea has achieved unprecedented economic growth and industrialisation, and during this brief period the former, gap of level of industrialisation with early industrialised countries has narrowed. The core of this growth was development strategies centred on large corporations, manufacturing sectors, and export industries led by state actors called the developmental state. According to Evans (1997), the effectiveness of the developmental state was based on embedded autonomy. The state was well connected to society, and at the same time, it was able to implement relatively independent policies toward the whole country beyond the interests of individual groups (Evans, 1997: 12-13). In addition to this, economically, the emergence of the Fordist mass production system alongside a concurrent new international division of labour, and politically, the Pax Americana political paradigm after WWII were external settings that enabled state developmentalism as did Korea's internal state capability (Lee, 2020). Within these contexts, the Korean government actively pursued foreign borrowing to attract external capital; funds upon which industrialisation was achieved. In addition, the Korean state, with extensive control over economic resources, strategically managed capitalist, and provided full support and performance allocation under the name of the national champions. Through such control over industrial capital and capitalists, the Korean developmental state processed considerable autonomy and capability. The strong interventionist role of the Korean state with regards to economic and industrial strategies allowed

Korea to become the epitome of the developmental state.

From the late 1980s, however, changes began to appear in Korean state developmentalism. The end of the Bretton Woods system and the shift in US foreign economic policy- the conditions that enabled Korea's rapid growth in terms of exports and trade- disappeared. In addition, the export boom in the 1980s and the rapid growth of power of chaebols to the state, weakened the developmental state's autonomy and capability (Ji, 2011: 111). At the same time, the internal impacts of excess and redundant investment stemming from the heavy and chemical industrialisation programme began to affect the Korean economy and, prompted the onset of economic liberalisation. Nevertheless, as the empirical chapters have shown, the persistence of developmental legacies remained relatively strong, as the oligopolistic market structure continued to deepen due to government favouritism toward specific sectors. Despite pursuing liberalisation practices led by the state, the Korean state remained closer to the developmental state in form even though it was, not a typical archetype due to the enduring legacies of state developmentalism.

The change revealed explicitly due to the waves of globalisation and neoliberalisation in the 1990s, and the 1997 financial crisis which disclosed the internal contradictions of state developmentalism and suggested that it is no longer effective in explaining the Korean state. Following the limits of state developmentalism and the neoliberal prescriptions from transnational organisations, the end of the developmental state seemed to come, with post-developmentalism emerging in its place. However, despite the financial crisis and the neoliberal prescriptions being the main catalyst that led to the transformation, this study argues that the Korean state has not adopted full-scale neoliberal principles, and the process of the transformation was highly variable across sectors, and it simultaneously generated both the developmental legacies and post-developmental novelties. Whilst there was undoubtedly a significant shift in the Korean developmental state following the economic crisis and neoliberal prescriptions, its essence still reflects the developmental approach, albeit at a superficial and formal level, indicating an ongoing attachment to the developmental state rather than a substantive transition. The outcome may appear, with hindsight, to have been somewhat inevitable, because Korean developmentalism has been institutionalised through experiences of success. To dismantle it, something surpassing that success would be needed; hence the developmental institutional path dependency embedded in the changes of Korean state developmentalism, making variegated from of the evolution toward a post-developmental state.

In relation to the transformation of the Korean developmental state, this dissertation addressed two strands of the conventional discussions in Chapter 1 and 2: One is the dismantling of

the developmental state and transition to a neoliberal state, and the other is the continuation of the developmental state (Park, 2010; 2015). The argument emphasising the death of the developmental state is that Korea's macroeconomic policies were greatly influenced by neoliberal principles, and that the expansion of free trade and the internationalisation of production networks of Korean manufacturing companies have increased the impacts of the global market with the state's institutions changed accordingly while the state's developmental interventional roles disappeared (Chang, 1998, 2003; Ji, 2011; Pirie, 2005; Stubbs, 2009; Yoon, 2009). The other strand in contrast argues that the continuation of the developmental state body emphasises the path dependence of the institutions even more, even though the globalisation of production networks and neoliberalisation have had a lot of influence upon Korea. The latter approach also emphasises that the state's role in post-developmentalism has changed toward more implicit ways, but in the end, and with regards to economic, industry, and trade issues, the Korean state still sets major targets and provides benefits and support for them in order to accumulate national wealth (Chu, 2009; Lim, 2018; Thurbon and Weiss, 2006; Wade, 2018).

The limitations of the two arguments pointed out in this study are two-fold. First, they lay down the definitions of the developmental state and the post-developmental state. Second, they take a dichotomous approach to whether or not Korea conforms to the definitive post-developmental state. The arguments used commonly assume that the post-developmental state is a neoliberal state, and focuses on whether Korea became a neoliberal state. In reality and with regards to removing the obstacles to the function of the free market and emphasising the virtue of individualism and competition (Peck, 2011), Korea has adapted neoliberal principles since the late 1980s. Nevertheless, this study stresses that the change in appearance is just a result of neoliberalisation, and that it is necessary to focus on the various geographical processes and conjunctures that appeared during the change to interrogate the actual emergence of a post-developmentalism (Peck, 2017; 2023). In addressing these points, this study has examined and identified the dynamic and variegated processes of the changing nature of Korean state developmentalism. To do so, this study conducted conceptual reframing works: first, positioning Korean state developmentalism within one of variegations of global capitalism away from closed and definitive concept, and second, identifying the changes from state developmentalism to post-developmentalism as process-based dynamic evolutionary approach through the EEG perspective blended with the GPE framework.

As mentioned in the research gap and limits to the literature (see Chapter 1 and 2), this study has not tried to clarify the destiny of the Korean developmental state. Instead, it seeks to investigate how state developmentalism, when encountered with neoliberalisation and globalisation, evolves in

variegated ways and ultimately manifests in the emergence of Korean post-developmental state. This study has sought, therefore, to elaborate how to approach the emergence of Korean post-developmentalism as a variegation of capitalism and to interrogate how developmental legacies and post-developmental novelties are intertwined within various geographic scales. To do so, this study has addressed three specific research questions:

1. How has the role of the state changed during Korea's process of evolution from the developmental to a post-developmental state?
2. How have developmental state-firm relations changed during the Korea's evolution to a post-developmental state?
3. Why have local governments not played a prominent role in national industrial strategies in the developmental state? And is the subnational regional industry evolving along with the evolution to the post-developmental state?

With regards to the first, almost all studies related to state developmentalism, as well as this study, acknowledge that there have been significant changes in the developmental state, and it can be concluded that there should be a change in the role of the state. The key is not whether the policy has shifted to neoliberal direction, but rather, the principles by which the state adjusted its policies in response to changes in the global political economic settings. The answer to this question therefore relates to how the state adopted and adapted neoliberal principles and how it led to (un)changes of national level industrial and regional development policy. On the second question, it concludes that large corporations, one of the major actors of the developmental state, grew with the full help of the state and that they should be the focus of discussion when it comes to ascertaining whether the relations between the state stayed the same in post-developmentalism, when the importance of the free market grew and whether corporate strategies changed into a more pro-market form. In commenting further on this question, the study examined how the neo-mercantilist developmental state and the corporate strategy for it have gone through a process of change. Finally, and with regard the third question, the study has shown how developmental legacies has hindered the legally guaranteed of autonomy for local and regional governments. Local and regional independent autonomy has been legally guaranteed from the central government, and central powers have been delegated to subnational governments; however, local and regional governments still show a strong dependency on the state. The answer to this question lies in the (un)changing relationship between the central and local governments and why the legacy of state developmentalism continue to sustain such a hierarchical relationship.

Cumulatively, these three questions and the answers to them have enabled this study to elaborate upon the transformation from state developmentalism to post-developmentalism as a variegated way of the evolution, and to understand the political economic dynamics that have arisen at various geographical scales.

9.2 Summary of the key findings of this dissertation's empirical analysis

This dissertation has taken a critical view of the suggestion that there was a linear transition of the Korean developmental state towards a neoliberal state and has elaborated on how issues of developmental continuity and legacy have mixed with neoliberal principles in the emergence of the so-called Korean post-developmentalism. From this, questions arise pertaining to the kind of legacies and novelties that coexist and have shaped the unique form of the Korean post-developmentalism. In addressing such issues, the study focused on three different geographic scales to elaborate on how industrial and regional development policies and corporate strategies (un)changes followed globalisation and neoliberalisation, and how this led state developmentalism to evolve into post-developmentalism. In relation to this, this study suggests and answers the three research questions to address the research focus, and empirical research was conducted.

1. How has the role of the state changed during Korea's process of evolution from the developmental to a post-developmental state?

A key factor in the developmental state is the leading role of the state and how it takes advantage of the second mover. During the developmental period, Korea captured the opportunities and challenges given by the global economy well, and there was central government-led industrial nurturing and coordinating programmes. For example, by implementing appropriate state-led industrial policies through linkages with advanced industrial countries, such as the US and Japan, both government failure and market failure were minimised. This approach allowed for the efficient allocation of limited resources by concentrating investment selectively in specific sectors. In addition to this, it was possible to secure state autonomy over foreign capitalist by controlling the penetration of MNCs and FDI through foreign loan preference over inward FDI. Nevertheless, the 1990s was a time when many things changed, and the transformation of state developmentalism accelerated in Korea. In the context of the integrated global economy and trade, it has become increasingly difficult to grant exceptional benefits through selective industrialisation programmes in the manner that had previously been done. Additionally, with the maturation of industries, the role of the state shifted from nurturing industries and firms to coordinating them. Finally, with the liberalisation of inward FDI

in Korea, focus shifted from managing foreign capital to attracting foreign investment.

These changes did not erase all characteristic of Korean state developmentalism, nor did they manifest uniformly across all industries. While it is clear that many policy directions became neoliberalised during the 1990s, the underlying principles of their implementation was unchanged. For example, the development of eco-friendly ships and state support for the semiconductor sector as one of national strategic industries in the 2020s, both continue to reflect the developmental export-driven strategy that sought to secure export competitiveness. Moreover, and in the case of introducing foreign capital, different industries exhibit distinct characteristics. For the shipbuilding sector in which foreign technology was not critical, measures were taken to curb foreign investment from gaining dominance over the industry. In direct contrast, the semiconductor sector has accepted foreign investment since the 1960s to acquire technology. These different stances indicate that Korean state developmentalism has not been uniformly applied to all sectors and has not disappeared despite various changes to the country's economic context including, for instance, financial crises. Given this, conjunctural focus of variegated policy practices of individual industries instantly problematises any proclamations of 'the post-developmental state', and therefore, it is more appropriate to view Korean post-developmentalism as an incremental and dynamic evolution and qualitative change of state developmentalism rather than a complete break from the developmental state.

2. How have developmental state-firm relations changed during the Korea's evolution to a post-developmental state?

A basic principle of the developmental state is to accumulate capital through mass production and mass exports based on economic nationalism. During Japanese occupation and the Korean War, there were neither resources nor sufficient industrial capital, and industry could only be developed through foreign aid and loans during the Cold War period. In addition to this, through the economic and industrial policies of the Korean developmental government, heavy and chemical industries that were nurtured from the 1970s, and grew the country became one of mass production and exports. However, there was a problem associated with this: resources were so scarce that industries had no choice but to rely on imports of raw materials and parts, and exports increased but the trade deficit continued. For this reason, the strategy of the state and conglomerates was to improve the trade balance by importing only those materials which were necessary, and establishing in-house production systems from start to finish. As a result, intra-industry linkages and the participation of specific companies in various 'additional' sectors (such as aspects of production supply chains) appeared in the Korean developmental state.

This the internalisation of corporate production system centred on the large conglomerates,

so-called chaebols, and has continued into post-developmental era. The characteristics of major Korean companies are that they run both core and unrelated businesses and, in the case of manufacturing, companies tend to sustain whole production processes. Of course, as global production networks expand, production processes have been strategically transnationalised, but Korea still aims for an internal production process. That Korean companies have consolidated their efforts on internal production systems and domestic production networks can be seen as a developmental legacy of the policy principles of import control and export increase. Despite the weakening of the state's control due to the growth of the power of chaebols and the emergence of market-friendly capitalist global settings based on neoliberalisation, state-firm relations in Korea are still interdependent. The state continues to provide (in)direct support to companies in strategic industries such as shipbuilding and semiconductors to secure national capital. For example, the government has injected (in)formal funds to address crises in the shipbuilding industry, and has also actively participated in responding to global issues that have arisen in the semiconductor industry as discussed in Chapter 7. These efforts demonstrate that the state is still striving to sustain the global competitiveness of its key industries; an approach and desire that confirms that the state still seeks to manage industries in a developmentalist manner. Ultimately, while there have been changes to which industries receive support and benefits, the fundamental principles of state interventions in strategic industries have not manifestly altered. This developmentalist principles evidence the path dependence of the developmental legacy in corporate production system and state-firm relations in Korea to date.

3. Why have local governments not played a prominent role in national industrial strategies in the developmental state? And is the subnational regional industry evolving along with the evolution to the post-developmental state?

As the Korean state moved through the 1990s, the emergence of post-developmentalism naturally led to the perception of Korea being a decentralised state. There is an assumption discussed in Chapter 1 and 2 that post-developmental Korea, having moved beyond traditional developmentalism, is a decentralised country that emphasises local and regional contexts. Legally, the full emergence of local and regional government in Korea can be dated by 1995. Although local and regional administrative systems existed, the heads of local and regional government were appointed by the president, making them more akin to branches of the central government rather than independent local and regional entities. Nevertheless, with the legal implementation of local autonomy, it was believed that local influence and autonomy would increase. Critical scrutinising this, it can be seen that the developmental legacy remains stronger than expected in the local context. For example, the

developmental industrialisation programme for nurturing heavy and chemical industries included spatial strategies that involved implanting specific industries in designated regions to promote the organic growth and link between the strategic industries. This resulted in the state crafting and transplanting development paths for both local and regional levels. In the case of the shipbuilding areas, the emergence of large shipyards in the 1970s led to the development of specialised shipbuilding areas rather than the development of a diverse range of industries. As a result, local population, economic structure and regional political systems all became heavily dependent on the shipbuilding industry and the national level industrial policies.

At the same time, not all local and regions had their development paths determined by the spatial strategies of the developmental industrialisation programme. For example, although the electronics (later semiconductor) industry was a strategic industry for the developmental state, it has exhibited relatively corporate-led growth. While it received exceptional benefits from the central government, it was less dependent on the central government compared to other heavy and chemical industries. Specifically, In Suwon and Yongin, Korea's largest semiconductor cluster, the government helped by applying exceptions to the Factory Location Limit System of Seoul Metropolitan, thereby aiding the development of the semiconductor industry. However, the primary driver of industrial and regional development was the corporations, with local governments creating favourable environments for corporate activities. It is also the case that the currently under-constructed semiconductor cluster, although the industry cluster plan was initially corporate-driven and then shifted to a state-led approach due to global semiconductor issues, local governments have been playing an active role and not merely provided land; unlike the shipbuilding regions. This indicates that regions not shaped by the developmental regional development path tend to exhibit more autonomy and leading roles for local entities; another aspect of post-developmentalism. Consequently, when explaining developmentalism and post-developmentalism in local and regional contexts, the most crucial factor to consider is the formation of developmental local and regional development paths. Regions not entrenched in the path appear to diverge from traditional state developmentalism as discussed in Chapter 8.

Cumulatively, the 1990s Asian financial crisis was undoubtedly a major juncture that brought significant transformation to Korean state developmentalism. As a result, national level policies began to shift under neoliberal principles, and particularly, changes in methods of capital introduction -such as financialisation and foreign investment attraction- can be seen as hallmarks of post-developmental novelties. However, at lower geographical scales, the legacies of state developmentalism remains evident. For instance, the export-oriented domestic production networks and the centralised central-

local governance structure reflect enduring developmentalist practices. These represent the practical implementation of national level policies, wherein the direction of industrial and regional policies has increasingly adopted neoliberal principles, yet their actual execution continues to be shaped by institutional elements of state developmentalism. Moreover, this implementation varies significantly across sectors. In the shipbuilding industry, the developmental legacies are more pronounced, while in the semiconductor sector, the emphasis lies on the neoliberal novelties. This reveals that the implementation of industrial policies has taken on a highly variegated and fragmented trajectory. Ultimately, the transformation from state developmentalism to post-developmentalism does not signify a wholesale transition of institutional arrangements. Instead, it manifests as a patchy and uneven incorporation of neoliberalisation, with varying degree of acceptance across different domains.

From the conventional perspective of the transformation of the developmental state, Asian countries tend to be thought of as having converged towards the model of neoliberal states following both globalisation and neoliberalisation (Pirie, 2018; Yoon, 2020). The state's autonomy and capabilities weakened, and it became difficult to reject the trend of deregulation and openness to strengthen competitiveness and efficiency. As a consequence of this trend, industrial and regional development policies seemed to shift to neoliberal ways rather than sustaining the neo-mercantilist policy principles of state developmentalism. Nevertheless, and regardless of whether the individual developmental state is sustained or transformed into a neoliberal state, each country's development model is bound to strengthen its neoliberal character under the context of globalisation. In any case, a national state's industrial policies and corporate strategies should fully or partially adapt to neoliberal principles such as deregulation, openness, liberalisation and privatisation in order to strengthen their international competitiveness as well as inflows of foreign capital within the variegated system of capitalism (Pirie, 2013). Real-world neoliberalisation unfolds in variegated ways through the institutional contexts and conjunctures of the state (Harvey, 2005; Brenner *et al.*, 2010). In other words, the legacy of state developmentalism still remains, significantly influencing the neoliberal transition in East Asian countries, which is not a unidirectional movement, but rather configuration of variegated forms of neoliberalism and capitalism. It follows, that instead of viewing the transformation of the Korean developmental state to the Korean post-developmental state as a linear progression toward a neoliberal state, it is more fitting to understand it as one of unique form of capitalist variegation, and that understanding the same requires tracing the process of its evolution through its own geographical-historical contexts.

9.3 Conceptual contributions: Geographical contextualisation and the evolutionary approach to the emergence of Korean post-developmentalism

Conventional research, predominantly in the field of political science, has sought to elucidate the transition of Korean national characteristics through the process of industrialisation and the economic crisis. These studies often serve as foundational texts in developmental state research. These studies exhibit at least two limitations. First, changes in state developmentalism viewed through the lens of political sciences often becomes entrenched in policy determinism, and thus fails to undertake meticulous examination of the underlying contexts. This, in turn, overlooks implications that can be drawn from analysing changes in the Korean state developmentalism through national level policy shift from the authoritarian state to a neoliberal state. For example, implications such as the legacy of state developmentalism and the dynamics of change manifested across various scales are not adequately captured. Second, there an induction-based approach to recognising the changes in state developmentalism as outcomes is taken. While it is undeniable that there have been changes to the Korean state developmentalism, understanding how these changes have actually manifested and unfolded is lacking. By addressing these two limitations, this study geographically contextualises Korean (post)-developmentalism through describing the two case studies and their geographical specificities; a primary conceptual contribution made by this dissertation to furtherance of existent academic knowledge.

Specifically, this study argues that the developmental state should not be understood as a universal model that can be applied to any spatio-temporal context, but should underscore how the unique historical-geographical origins of the developmental state generates path dependent effects. The emergence of the developmental state is closely related to the economic nationalism that resulted from colonial rules, national divisions, and the external settings that stemmed from the Cold War order and the hegemony of the US (Yoon, 2020). Existent studies have tended to vacillate between the two strands of the live and death of the developmental state because they have attempted to identify the characteristics of the state itself rather than adopt a contextual and conjunctural approach to the developmental state that involves ever-changing feature. In addition, there has been an assumption that neoliberalism affects all spaces homogeneously. Clearly, neoliberalisation has appeared globally and has had significant impacts on institutional settings, but it has not appeared in the same way in all countries. This study suggests that conventional developmental state literature has accepted and applied neoliberalisation as its face value, and that this is due to this corpus of work overlooking the fact that there are variegated forms of neoliberal regimes that reflect the

peculiarities and uniqueness of geographies of individual states (Brenner *et al.*, 2010). In other words, even neoliberal reforms or policies appear differently depending on the geographical contexts of the given state, and may also appear different even within the same country according to temporal settings. By the same token, the study thinks that the existent dichotomy between Korean developmental and post-developmental state research resulted from a failure to take into account such spatio-temporal contexts. In order to discuss this alongside variegated forms of neoliberalism, this study argues that the post-developmental state should be understood as an undefined concept; 'a post-developmental state', in which the geographies of the state are everchanging.

As important as the geographical contextualisation, the evolutionary approach that connects Korean developmentalism and post-developmentalism without dividing them into opposite concepts is the second conceptual contribution of this dissertation. The evolutionary approach to the developmental state is not new. Emphasising the continuity of developmental features, the developmental path dependent approach has already been discussed. Nonetheless, these arguments have limitations in that they have underestimated the influence and force of globalisation and neoliberalisation by overly emphasising the path dependency of the developmental state (Pirie, 2013). It is clear that neoliberalisation and globalisation have had significant impacts on Korean developmentalism, and that the path dependence of state developmentalism strongly exists. This study understands the evolution towards post-developmentalism as a blending process between developmental legacies and post-developmental novelties rather than representing a complete replacement of old institutions with new ones. As confirmed in the analysis chapters, various economic institutions have changed under the name of reform, but fundamentally, they have only changed in appearance rather than essence. This institutional change occurred gradually and, from a long-term perspective, can be perceived as a significant change that has occurred via evolution. In this regard, returning to the first paragraph of Chapter 1, the critical engagement with the convergence of capitalism by neoliberalisation gains more power. Despite the strong influence of neoliberalisation and globalisation, they are more likely to introduce variegated forms of capitalist institutional structures rather than result in convergence. This continuous evolution and the changes of Korean state developmentalism constitute unique form of the variegated system of capitalism making it a more nuanced and conjunctural economic landscape at various geographical scales and different sectors.

Meanwhile, this incremental evolution can also be interpreted as institutional layering. Drawing on the concept of Streeck and Thelen (2005) and Thelen (2009), post-developmentalism could be conceptualised as a process in which a neoliberal layer is added on top of the state

developmentalism layer, gradually displacing developmentalism over time and culminating in the emergence of post-developmentalism as a new equilibrium. However, this dissertation emphasizes geographically variegated and fragmented nature of this transformation rather than framing it as a transition to a stable equilibrium between national level institutions of state developmentalism and post-developmentalism. As highlighted multiple times earlier, this study moves beyond the binary framework of the developmental state versus post-developmental state and instead seeks to understand post-developmentalism as geographically cumulative result of continuous mutation and evolution of developmentalism with legacies and novelties.

Given this, it is difficult to reach a general theoretical consensus when it comes to defining the evolution of Korean state developmentalism within the context of its geographic contextualisation and an evolutionary approach. This, in turn, argues that subsequent discussion of 'post-developmentalism' should adopt this dissertation's approach by examining concrete case studies from specific vantage points. This ensuing conjunctural analysis will provide more incisive insight on what 'post-developmentalism' is. In addition, accurately defining and conceptualising post-developmentalism is also difficult. If, as in the conventional approach, the developmental and post-developmental state are understood as opposing concepts, one may question whether there are nations in the world that are not developmental states today. For example, the Biden administration in the US announced the CHIPS Act, which includes financial support for the semiconductor industry, in August 2022. Subsequently, the US Department of Commerce released detailed support plans for semiconductor manufacturing facilities in 2023 as part of the incentive programmes outlined in the legislation. This detailed legislation, advocating for national interests in the semiconductor industry through protection and promotion, evokes memories of industrial policies executed by past Korean developmental state. The fact that even the epitome of liberalism, the US, implements industrial policies reminiscent of state developmentalism suggests that there are limitations to the universalisation of the developmental and post-developmental state concepts. In the end, it is important to emphasise that an understanding of state developmentalism, post-developmentalism and its changes should be approached by considering the contexts and conjunctures of individual capitalist countries, rather than being approached with a single fixed definition of concepts. Moreover, this applies not only at national level policies but reveals varying policy practices across different sectors. In other words, what matter is not whether it is state developmentalism or post-developmentalism, but rather that state developmentalism is dynamically evolving across geographical scales and sectors. As such, understanding this dynamic evolution as a comprehensive phenomenon is the approach to post-developmentalism.

9.4 Reflections and limitations of the dissertation and further research directions

The clear limitations of the assumption that the market would expand with the acceleration of globalisation and neoliberalisation have been demonstrated not only by this study but also by numerous existent research. In a similar vein, the prediction that the importance of nationality of MNCs would decrease is an assumption focused on theory rather than geographical contexts and reality. It is true that MNCs have segmented their processes in terms of R&D, FDI, and corporate production strategies, and that they have expanded into global production networks, and that the scope of their business has exceeded those of individual states. Nevertheless, even if competition and mutual cooperation are free in the global market, individual country's policies to industries and firms do not seem to have converge. The history, institutions, and ideological legacies of individual countries continue to have great influence on corporate strategies (Pauly and Reich, 1997), and the importance of geographic contexts should be noted in the flow of globalisation and neoliberalisation.

While this study takes a critical view of the decontextualization of the changes of the Korean developmental state, there are some unresolved challenges. First, on an empirical level, there were limitations in rarely utilising data obtained directly from the central government. Due to practical constraints, this study was unable to secure direct data from national level actors. Instead, it relied on indirect data collected from research body and local governments, who can be considered proxies for the central government. While the data obtained from researchers and local governments are highly reliable, the inability to directly capture the central government's intentions behind industrial and regional policies or to identify governance changes within the central government compared to the past constitutes an unresolved challenge of this study. Second, there is limitation of comprehensive understanding across different sectors. This study focused on the shipbuilding and semiconductor industries as case studies. These two industries have received more diverse policy management compared to other sectors as they are strategic industries of the state. This focus naturally risks leading to conclusions that emphasise the role of the state and state's intervention. It follows, that it would also be valuable to conduct a cross-sectoral comparative study on industries that are not state strategic industries and have been less influenced by policies. This, in turn, would allow greater understanding of how significant the role of the state actor is in the developmental state and how the evolution from state developmentalism to post-developmentalism appeared in such contexts. Third, while the study explained the evolution to post-developmentalism due to neoliberalisation and globalisation, the impact of geopolitical and geo-economic factors is also significant today. Although briefly mentioned in Chapter 5 regarding changes of global orders, more consideration of this angle

could be given in the future. In particular, the shipbuilding and semiconductor industries, as of 2024, are heavily influenced by geopolitical and geo-economic factors, leaving room for analysis from various perspectives.

To address these challenges, follow-up research directions could be undertaken. Firstly, subsequent studies could emphasise the role of non-state actors on the evolution of the developmental state framework. This suggests that there is potential for analysing the transformation of state institutions by shifting the focus on non-state actors, offering room for analysis from their perspectives; questions such as why (multinational) corporations aligned with the Korean developmental industrial policies, and what strategies localities could adopt alongside corporations in response to changes in the policies, could be explored. Specifically, as demonstrated by the semiconductor industry and regional case study, it appears that industry and regions led by the firms possess stronger negotiating power with the developmental government. Research could investigate the proactive roles these entities might have played. In addition to this, cross-national comparative study with geopolitical and geo-economic tensions and the GPN frameworks. An analysis using geopolitics and the GPN framework to explore why state developmentalism had to change, or why it is resisting change, is believed to contribute to overcoming the limitations of this study. Such follow-up research would not solely emphasise economic or institutional changes, but rather highlight the political economic dynamics and power surrounding the state. This also signifies that the evolution of the Korean developmental state cannot be analysed purely from an economic perspective.

International dynamics are becoming increasingly prominent. Not only countries that have experienced state developmentalism but also those at the forefront of neoliberalisation and globalisation are contemplating how the state can strategically intervene to serve their national interests. The nature and behaviour of state are not fixed; rather, they shift constantly in response to internal political economic dynamics and the ever-changing global capitalist system. Instead of over generalising and defining capitalism and the capitalist state, it is essential to analyse the mechanisms behind 'why' and 'how' these systems changes-or resist to change- by taking into account geographical insights.

Bibliography

- Agnew, J. (1994) "The territorial trap: The geographical assumptions of international relations theory", *Review of International Political Economy*, 1, 15-80, DOI: [10.1080/09692299408434268](https://doi.org/10.1080/09692299408434268).
- Albert, M. (1993) *Capitalism Against Capitalism*, London: Whurr.
- Alami, I. (2022) "The spiral of state capitalism: labour transformations or the 'whip of external necessity'?", *Global Political Economy*, 2 (1), 17-36, DOI:[10.1332/XBQC5746](https://doi.org/10.1332/XBQC5746).
- Alami, I., Babic, M., Dixon, A. and Liu, Imogen. (2022) "Special issue introduction: what is the new state capitalism?", *Contemporary Politics*, 245-263, DOI:[10.1080/13569775.2021.2022336](https://doi.org/10.1080/13569775.2021.2022336).
- Alami, I., Dixon, A., Gonzalez-Vincente, R., Babic, M., Lee, S-O., Medby, I. and Graaff, N. (2021) "Geopolitics and the 'New' State Capitalism", *Geopolitics*, 995-1023, DOI:[10.1080/14650045.2021.1924943](https://doi.org/10.1080/14650045.2021.1924943).
- Alami, I., Whiteside, H., Dixon, A. and Peck, J. (2023) "Making space for the new state capitalism, Part II: Relationality, spatiotemporality and uneven development", *Environment and Planning A: Economy and Space*, 55 (3), 621-635, DOI:[10.1177/0308518X231156913](https://doi.org/10.1177/0308518X231156913).
- Amsden, A. (1989) *Asia's Next Giant: South Korea and Late Industrialisation*, Oxford: Oxford University Press.
- Bae, S-M. (2018) "The Korean Shipbuilding Industry in the 1960s~70s: Dramatic Conversion to an Industry specialized in Exportation", *Critical Review of History*, 112, 71-105.
- Bae, Y. (2023) "Industrial and Human Resource Strategy in the Post-Developmental State Singapore: Continuity and Evolution of the Developmental State", *Journal of Contemporary Politics*, 16 (3), 91-129.
- Baek, G-G. (2004) "Historical Essay on the Growth of Modern Big Business Corporations and the Formation of Business Groups in Korea- With the Focus on the Government Intervention", *Korean Business Review*, 17, 27-52.
- Baek, J-G. (2002) "Korean Industrialization and State after World War 2", *Journal of Korean Politics*, 11 (1), 245-304.
- Bank of Korea (BOK). (2016a) *Analysis of the competitiveness of the shipbuilding industry of South Korea, China and Japan, and sustainable development strategies for Medium-sized*

- shipbuilding industry in Jeonnam*, The Bank of Korea Mokpo Branch 2016-01.
- _____. (2016b) *Analysis of competitive conditions in the Korean semiconductor industry and future policy agenda*, The Bank of Korea Chungnam Branch 2016-04.
- _____. (2023) *Maps of Major Manufacturing Production and Supply Chains in South Korea*, Regional Economy Department, Research Bureau, The Bank of Korea (ISBN: 979-11-5538-640-8).
- Barnes, T. J. (2023) "Towards a pragmatist economic geography", *Environment and Planning A: Economy and Space*, Online publish in 2023, DOI:10.1177/0308518X231203087.
- Barnes, T. J. and Christophers, B. (2018) *Economic Geography: A Critical Introduction*, Hoboken NJ: Wiley & Sons.
- Bartlett, L. and Vavrus, Frances. (2017) "Comparative Case Studies: An Innovative Approach", *Nordic Journal of comparative and International Education*, 1 (1), 5-17, DOI:10.7577/njcie.1929.
- Bathelt, H. and Storper, M. (2023) "Related variety and Regional Development: A Critique", *Economic Geography*, 99 (5), 441-470, DOI:10.1080/00130095.2023.2235050.
- Bhaskar, R. (1975) *A Realist Theory of Science*, New York NY: Routledge.
- _____. (1989) *Reclaiming Reality: a Critical Introduction to Contemporary Philosophy*, London: Verso.
- _____. (1998) *The Possibility of Naturalism: A Philosophical Critique of the Contemporary Human Sciences*, New York NY: Routledge.
- Boschma, R. (2022) "Global value chains from an evolutionary economic geography perspective: a research agenda", *Area Development and Policy*, 7 (2), 123-146, DOI:10.1080/23792949.2022.2040371.
- Boschma, R. and Frenken, K. (2006) "Why is economic geography not an evolutionary science? Towards an evolutionary economic geography", *Journal of Economic Geography*, 6, 573-302, DOI:10.1093/jeg/lbi022.
- Boschma, R. and Lambooy, J. G. (1999) "Evolutionary economics and economic geography", *Journal of Evolutionary Economics*, 9, 411-429.
- Boschma, R. and Martin, R. (2007) "Editorial: Constructing an evolutionary economic geography", *Journal of Economic Geography*, 7, 537-548, DOI:10.1093/jeg/1bm021.

- Brenner, N. (1999) "Beyond state-centrism? Space, territoriality, and geographical scale in globalization studies", *Theory and Society*, 28, 39-78, DOI: [10.1023/A:1006996806674](https://doi.org/10.1023/A:1006996806674).
- _____. (2004) *New state space: Urban governance and the rescaling of statehood*, Oxford: Oxford University Press.
- Brenner, N., Peck, J. and Theodore, N. (2010) "Variegated neoliberalization: geographies, modalities, pathways", *Global Networks*, 10 (2), 182-222, DOI: [10.1111/j.1471-0374.2009.00277](https://doi.org/10.1111/j.1471-0374.2009.00277).
- Burawoy, M. (1998) "The Extended Case Method", *Sociological Theory*, 16 (1), 4-33.
- _____. (2009) *The Extended Case Method: Four countries, Four Decades, Four Great Transformations, and One Theoretical Tradition*, Berkeley: University of California Press.
- Caldentey, E. P. (2008) "The Concept and Evolution of the Developmental State", *International Journal of Political Economy*, 37 (3), 27-53, DOI: [10.2753/IJP0891-1916370302](https://doi.org/10.2753/IJP0891-1916370302).
- Chang, H-J. (1993) "The political economy of industrial policy in Korea", *Cambridge Journal of Economics*, 17, 131-157.
- _____. (1994) *The Political Economy of Industrial Policy*, London: Macmillan.
- _____. (1998) "Korea: the misunderstood crisis", *World Development*, 26, 155-161, DOI: [10.1016/S0305-750X\(98\)00057-6](https://doi.org/10.1016/S0305-750X(98)00057-6).
- _____. (2003) *Globalisation, Economic Development, and the Role of the State*, London: Zed books.
- _____. (2006) *The East Asian Development Experience*, London: Zed Books.
- Cho, H-N. (2023) "A Political and Economic Analysis on Policy Changes in the South Korean Shipbuilding industry", Unpublished Ph.D. dissertation, Department of Political Science, The Graduate School, Seoul National University.
- Cho, I. and Lee, B-R. (2021) "Issues and Challenges on the Central-Local Government Relations in Korea", *Korean Review of Organizational Studies*, 18 (3), 67-104, DOI: [10.21484/kros.2021.18.3.67](https://doi.org/10.21484/kros.2021.18.3.67).
- Cho, S-H. (2009) "System and State Capabilities of the Developmental State: Focusing on the Park Chung-hee administration's Industrialization Strategy and Foreign Capital Introduction Policy", *The Journal of Korean Policy Studies*, 9 (2), 161-188.

- Choi, B-D. (2007) "Shift from Developmentalism to Neoliberalism and Changes in Spatial Policy in S.Korea", *Journal of The Korean Association of Regional Geographer*, 13 (1), 82-103.
- Choi, M-J. and Kim, Y-J. (2018) "Causes and effects of Industrial Complex and industrial New Town Development of Developmental State", *Journal of Korea Planning Association*, 53 (5), 5-20, DOI:10.17208/jkpa.2018.10.53.5.5.
- Choi, Y-J. (2015) "Geopolitical Economies and South Korea's Heavy Industrialization in the late 1960s and early 1970s: Case studies on "Hyundai Heavy Industries" and "Changwon Machine-building Industrial Complex"", Unpublished Ph.D. dissertation, Department of Geography Education, The Graduate School, Seoul National University.
- Chu, H. and Hassink, R. (2023) "Advancing spatial ontology in evolutionary economic geography", *Cambridge Journal of Regions, Economy and Society*, 16 (3), 391-404, DOI:10.1093/cjres/rsad020.
- Chu, Y-W. (2009) "Eclipse or Reconfigured? South Korea's Developmental State and Challenges of the Global Knowledge Economy", *Economy and Society*, 38 (2), 278-303, DOI:10.1080/03085140902786751.
- _____. (2013) "Coping with the Global Financial Crises: institutional and ideational sources of Taiwan's economic resiliency", *Journal of Contemporary China*, 22 (82), 649-668, DOI:10.1080/10670564.2013.766385.
- _____. (2016) The Asian Development State: Ideas and Debates, in Y-W. Chu (ed.) *The Asian Development State: Reexamination and New Departure*, London: Palgrave MacMillan.
- Clark, J. (2020) "Reframing deindustrialization", *International Journal of Urban Sciences*, DOI: 10.1080/12265934.2020.1843524.
- Coe, N. (2003) "Theorizing Economic Geographies of Asia", *Economic Geography*, 19 (2), 107-128, DOI: 10.1111/j.1944-8287.2003.tb00204.
- Coe, N., Hess, M., Yeung, H., Dicken, P. and Henderson, J. (2004) "'Globalizing' Regional Development: A Global Production Networks Perspective", *Transactions of the Institute of British Geographers*, 29 (4), 468-484.
- Coe, N. and Yeung, H. (2015) *Global Production Networks: theorizing economic development in an interconnected world*, Oxford: Oxford University Press.

- Colton, T. and Huntzinger, L. (2002) *A Brief History of Shipbuilding in Recent Times*, Center for Naval Analyses report (CMR D0006988.A1).
- Crouch, C., Schroder, M. and Voelzkow, H. (2009) "Regional and sectoral varieties of capitalism", *Economy and Society*, 38 (4), 654-678, DOI: [10.1080/03085140903190383](https://doi.org/10.1080/03085140903190383).
- Cumings, B. (1987) The Origins and Development of the Northeast Asian Political Economy: Industrial Sectors, Product Cycles, and Political Consequences, in F. C. Deyo (ed.) *The Political Economy of the New Asian Industrialism*, Ithaca NY: Cornell University Press.
- Deeg, R. and Jackson, G. (2007) "Toward a more dynamic theory of capitalist variety", *Socio-Economic Reviews*, 5, 149-179, DOI: [10.1093/ser/mwl021](https://doi.org/10.1093/ser/mwl021).
- Dixon, A. (2010) "Variegated capitalism and the geography of finance: Towards a common agenda", *Progress in Human Geography*, 35 (2), 1930-210, DOI: [10.1177/0309132510372006](https://doi.org/10.1177/0309132510372006).
- Dixon, A., Peck, J., Alami, I. and Whiteside, H. (2023) "Making space for the new state capitalism, Part III: Thinking conjuncturally", *Environment and Planning A: Economy and Space*, 55 (5), 1207-1217, DOI: [10.1177/0308518X231185587](https://doi.org/10.1177/0308518X231185587).
- Doucette, J. (2016) The post-developmental State: Economic and Social Changes Since 1997, in M. Seth (ed.) *The Routledge Handbook of Modern Korean History*, New York NY: Routledge.
- _____. (2020) "Anxieties of an emerging doner: The Korean development experience and the politics of international development cooperation", *Environment and Planning C: Politics and Space*, 38 (4), 656-673, DOI: [10.1177/2399654420904082](https://doi.org/10.1177/2399654420904082).
- _____. (2022) Business: Change and Development in South Korean Business Structures in S. Lim, N. Alsford and E. Griffith (eds.) *Teacher's Resource Book for EPQ on Korea*, Preston: University of Central Lancashire.
- _____. (2024) *The Postdevelopmental State: Dilemmas of Economic Democratization in Contemporary South Korea*, Ann Arbor MI: University of Michigan Press.
- Doucette, J. and Park, B-G. (2019) *Developmental Cities? Interrogating Urban Developmentalism in East Asia*, Boston MA: Brill.
- Economy Insight. (2023) "The Korean Elite Firms and Business Patriotism", 01 February 2023.

- Edington, D. (1993) "The Geography of *Endaka*: Industrial Transformation and Regional Employment Changes in Japan, 1986-1991", *Regional Studies*, 28 (5), 521-535, DOI: [10.1080/00343409412331348446](https://doi.org/10.1080/00343409412331348446).
- Eisenhardt, K. M. (1989) "Building Theories from Case Study Research", *The Academy of Management Review*, 14 (4) 532-550.
- ETNEWS. (2005) "Non-memory foundries open Korea's semiconductor second heyday [In Korean]", 24 November 2005.
- _____. (2016) "50 Years of Korean Semiconductors: Seeds planted in barren land [In Korean]", 20 July 2016.
- Evans, P. (1995) *Embedded Autonomy: States and Industrial Transformation*, Princeton NJ: Princeton University Press.
- Financial Times. (2018) "China steps up efforts to avert US trade war", 26 March 2018.
- _____. (2020) "A New Cold War: Trump, Xi and the escalating US-China confrontation", 05 October 2020.
- _____. (2022) "US struggles to mobilise its East Asian 'Chip 4' alliance", 13 September 2022.
- _____. (2023) "South Korean politician urges US to abandon China chip strategy", 06 August 2023.
- Fischer, S. (1998) "In Defense of the IMF: Specialised Tools for a Specialized Task", *Foreign Affairs*, 77 (4), 103-106.
- Fligstein, N. and Zhang, J. (2010) "A New Agenda for Research on the Trajectory of Chinese Capitalism", *Management and Organization Review*, 7 (1), 39-62, DOI: [10.1111-j.1740-8784.2009.00169.x](https://doi.org/10.1111-j.1740-8784.2009.00169.x).
- Flyvbjerg, B. (2006) "Five Misunderstandings About Case-Study Research", *Qualitative Inquiry*, 12 (2) 219-245, DOI: [10.1177/1077800405284363](https://doi.org/10.1177/1077800405284363).
- Ford, S. (2023) "The New Cold War with China and Russia: Same as the Old Cold War?", *Case Western Reserve Journal of International Law*, 55 (1), 423-478.
- Frederick, S., Bamber, P., Brun, L., Cho, J. and Gereffi, G. (2017) *Korea in Global Value Chains: Pathways for Industrial Transformation*, A Joint Project Technical Report between Korea Institute for Industrial Economics and Trade (KIET) and Duke Global Value Chains Center, DOI: [10.13140/RG.2.2.35653.76001](https://doi.org/10.13140/RG.2.2.35653.76001).

- Fukuyama, F. (1989) "The End of History?", *The National Interest*, 16. 3-18.
- _____. (1992) *The End of History and the Last Man*, New York NY: Free Press.
- Gao, B. (1997) *Economic ideology and Japanese industrial policy: Developmentalism from 1931 to 1965*, Cambridge: Cambridge University Press.
- Glassman, J. (2017) "Geopolitical economies of development and democratization in East Asia: Themes, concepts and geographies", *Environment and Planning A: Economy and Space*, 50 (2), 407-415, [DOI:10.1177/0308518X17737170](https://doi.org/10.1177/0308518X17737170).
- _____. (2018) *Drums of War, Drums of Development: The Formation of a Pacific Ruling Class and Industrial Transformation in East and Southeast Asia, 1945-1980*, Chicago IL: Haymarket Books.
- Glassman, J. and Choi, Y-J. (2014) "The Chaebol and the US Military-Industrial Complex: Cold War geopolitical economy and South Korean industrialization", *Environment and Planning A: Economy and Space*, 46, 1160-1180, [DOI:10.1068/a130025p](https://doi.org/10.1068/a130025p).
- Gong, H. and Hassink, R. (2019) "Co-evolution in contemporary economic geography: towards a theoretical framework", *Regional Studies*, 53 (9), 1344-1355, [DOI:10.1080/00343404.2018.1494824](https://doi.org/10.1080/00343404.2018.1494824).
- _____. (2020) "Context sensitivity and economic-geographic (re)theorising", *Cambridge Journal of Regions, Economy and Society*, 13, 475-490, [DOI:10.1093/cjres/rsaa021](https://doi.org/10.1093/cjres/rsaa021).
- Granovetter, M. (1985) "Economic Action and Social Structure: The Problem of Embeddedness", *American Journal of Sociology*, 91, 481-510.
- Grix, J. (2002) "Introducing Students to the Generic Terminology of Social Research", *Politics*, 22 (3), 175-186.
- Gyeongnam Institute (2021) *The shipbuilding industry in Gyeongnam, 2021: Currents and development challenges*, Gyeongnam Institute Research Report 2021-04.
- Haggard, S. (1990) *Pathways from the Periphery: The Politics of Growth in the Newly Industrializing Countries*, Ithaca NY: Cornell University Press.
- _____. (2004) "Institutions and Growth in East Asia", *Studies in Comparative International Development*, 38 (4), 53-81, [DOI: 10.1007/BF02686327](https://doi.org/10.1007/BF02686327).

- Haggard, S. and Moon, C-I. (1983) The South Korean state in the international economy: liberal, dependent or mercantile?, in Ruggie, J. (ed.) *The Antinomies of Interdependence: National Welfare and the International division of Labor*, New York, NY: Columbia University Press.
- Hall, P. and Gingerich, D. (2004) "Varieties of Capitalism and Institutional Complementarities in the Macro Economy", *MPIfG Discussion Paper 04/5*, DOI: [10.1007/978-1-4757-4062-2_3](https://doi.org/10.1007/978-1-4757-4062-2_3).
- Hall, P. and Soskice, D. (2001) *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*, Oxford: Oxford University Press.
- Hamilton, H. and Yeung, H. (2019) "Institutions under pressure: East Asian states, global markets and national firms", *Review of International Political Economy*, DOI: [10.1080/09692290.2019.1702571](https://doi.org/10.1080/09692290.2019.1702571).
- Han, S., Kim, Y-H. and Song, B. (2000) "Causes of Underdevelopment of Japanese Personal Computer Industry: An analysis of inter-organisation networks and the state role", *Korean Journal of Sociology*, 34, 153-166.
- Hassink, R. (2005) "How to Unlock Regional Economies from Path Dependency? From Learning Region to Learning Cluster", *European Planning Studies*, 13 (4), 521-535, DOI: [10.1080/09654310500107134](https://doi.org/10.1080/09654310500107134).
- _____. (2010) Locked in decline? On the role of regional lock-ins in old industrial areas, in Boschma, R. and Martin, R. (eds.) *Handbook of Evolutionary Economic Geography*, Edward Elgar: Cheltenham.
- _____. (2020) "Is geographical political economy the only/right framework for understanding and explaining deindustrialization in the regions of the Global North and South?", *International Journal of Urban Sciences*, DOI: [10.1080/12265934.2020.1775110](https://doi.org/10.1080/12265934.2020.1775110).
- Hassink, R., Gong, H. and Marques, P. (2019) "Moving beyond Anglo-American economic geography", *International Journal of Urban Sciences*, 23 (2), 149-169, DOI: [10.1080/12265934.2018.1469426](https://doi.org/10.1080/12265934.2018.1469426).
- Hassink, R., Klaerding, C. and Marques, P. (2014) "Advancing Evolutionary Economic Geography by Engaged Pluralism", *Regional Studies*, 48 (7), 1285-1307, DOI: [10.1080/00343404.2014.889815](https://doi.org/10.1080/00343404.2014.889815).

- Hassink, R. and Shin, D-H. (2005) "South Korea's Shipbuilding industry: From a Couple of cathedrals in the Desert to an Innovative Cluster", *Asian Journal of Technology Innovation*, 13 (2), 133-155, DOI: [10.1080/19761597.2005.9668611](https://doi.org/10.1080/19761597.2005.9668611).
- Heijden, J. (2011) "Institutional Layering: A Review of the Use of the Concept", *Politics*, 31 (1), 9-18, DOI: [10.1111/j.1467-9256.2010.01397.x](https://doi.org/10.1111/j.1467-9256.2010.01397.x).
- Hollingworth, J. R. and Streeck, W. (1994) Countries and sectors: performance, convergence and competitiveness, in Hollingworth, J. R. and Streeck, W. (eds.) *Governing Capitalist Economies: Performance and Control of Economic Sectors*, Oxford: Oxford University Press.
- Hong, S. (2008) *The global competitiveness and differentiation strategy of the South Korean shipbuilding industry*, KIET Monthly Report September 2008, 25-36.
- Hong, T-H. (2007) "The Post-Autistic Economics Movement and Critical Realism", *Economy and Society*, 74, 284-318.
- _____. (2011) "A Study on the Methodology of Economics and Critical Realism", *Ordo Economics Journal*, 14 (1), 1-18.
- Horesh, N. and Lim, K. F. (2017) "China: an east Asian alternative to neoliberalism?", *The Pacific Review*, 30(4), 425-442, DOI: [10.1080/09512748.2016.1264459](https://doi.org/10.1080/09512748.2016.1264459).
- Huntington, S. (1996) *The Clash of Civilizations and The Remaking of World Order*, New York NY: Simon & Schuster.
- Hwang, J-T. (2016) "Escaping the Territorial Trapped East Asian Developmental State Thesis", *The Professional Geographer*, 68 (4), 554-560, DOI: [10.1080/00330124.2015.1103657](https://doi.org/10.1080/00330124.2015.1103657).
- Hwang, J-T. and Park, B-G. (2014) "A Study on the Multi-scalar Processes of Gumi Industrial Complex Development, 1969-1973", *Journal of the Economic Geographical Society of Korea*, 17 (1), 1-27.
- Ibert, O., Hautala, J. and Jauhiainen, J. (2015) "From cluster to process: New economic geographic perspectives on practices of knowledge creation", *Geoforum*, 65 (5), DOI: [10.1016/j.geoforum.2015.06.023](https://doi.org/10.1016/j.geoforum.2015.06.023).
- International Monetary Fund (IMF). (1998) "The Asian Crisis: Causes and Cures", *Finance & Development*, 35 (2), 18-21.

- InvestChosun. (2017) "SK Siltron is just the beginning: SK expands strides in semiconductor vertical integration [In Korean]", 17 August 2017.
- Islam, I. (1992) "Political Economy and East Asian Economic Development", *Asian-Pacific Economic Literature*, 6 (2), 69-101, [DOI:10.1111/j.1467-8411.1992.tb00072.x](https://doi.org/10.1111/j.1467-8411.1992.tb00072.x).
- Jang, S. (2020) "Decline of Developmental State and Change of Development Model in 180's Korea: The Paradox of Economic Growth and the Path Dependence of State-Business Relationship", *Journal of East Asian Social Thoughts*, 23 (2), 149-178.
- Jessop, B. (1990) *State Theory: Putting the Capitalist State in its Place*, University Park PA: Penn State Press.
- _____. (2001) "Institutional Re(turns) and the strategic-relational approach", *Environment and Planning A: Economy and Space*, 33 (7), 1139-1328, [DOI:10.1068/a32183](https://doi.org/10.1068/a32183).
- _____. (2011) Rethinking the Diversity and Varieties of Capitalism: On Variegated Capitalism in the World Market, in Wood, G. and Lane, C. (eds.) *Capitalist Diversity and Diversity within Capitalism*, London: Routledge.
- _____. (2014) "Variegated Capitalism, das Modell Deutschland, and the Eurozone Crisis", *Journal of Contemporary European Studies*, 22 (3), 248-260, [DOI: 10.1080/14782804.2014.937410](https://doi.org/10.1080/14782804.2014.937410).
- Ji, J. (2009) "Globalization and the National State: A Strategic-Relational Approach", *Society and Theory*, 14, 121-171.
- _____. (2011) *Origin and formation of Korean neoliberalism*, Seoul: Chaeksesang.
- _____. (2015) "The Neoliberal State: A Strategic-Relational Approach to the State Form", *Economy and society*, 106, 360-406, [DOI: 10.18207/criso.2015.106.360](https://doi.org/10.18207/criso.2015.106.360).
- Jin, S-W. (2003) "A Transformation of Korean Developmental State into Korean Type Neo-liberal State: Historical Changes of Korea's Inward FDI Policy", *Journal of International Area Studies*, 12 (4), 75-103.
- _____. (2007) *International Political Economy in Korea: FTA, Foreign Investment, Division of Labor in Northeast Asia*, Seoul: Oruem Publishing House.
- Johnson, C. (1982) *MITI and the Japanese miracle: The growth of industrial policy, 1925-1975*, Stanford CA: Stanford University Press.

- Kim, C-S. and Lee, S. (2014) "Different Paths of Deindustrialisation: Latin American and Southeast Asian Countries from a Comparative Perspective", *Journal of International and Area Studies*, 21 (2), 65-81.
- Kim, E-H. (2015) "The Transformation of the Developmental State in Postwar Japan: From Construction State to Neoliberalism", *Journal of Korea Association of Japanology*, 105, 77-90. UCI: G704-000247.2015..105.013.
- Kim, I. (2004) "The Developmental State and Identity after the 1997 Economic Crisis: S.Korea, China, and Japan", *The Korean Journal of Area Studies*, 22 (1), 223-252, UCI: I410-ECN-0102-2009-900-002370862.
- Kim, J. (2019) "China's rise in the Semiconductor Industry and the Role of the State: A Perspective of New Institutionalism", Unpublished Ph.D. dissertation, Department of Public Policy, Graduate School of Public Policy and Information Technology, Seoul National University of Science and Technology.
- Kim, J-Y. (2003) "Beyond debates over the East Asian Model: Searching for New Agendas for East Asian Development", *Korea and World Politics*, 19 (1), 4-125.
- Kim, K-M. (2017a) "Adjustment of Developmental State: The Korean Case from Comparative Perspectives", *Journal of Korean Politics*, 26 (3), 87-112.
- _____. (2017b) "Politics of the Recomposition of the Developmental State: The Korean Experience from a Historical-Comparative Perspective", Unpublished Ph.D. dissertation, Department of Political Science, The Graduate School, Seoul National University.
- Kim, S-Y. (1998) "Policy Paradigm, Industry Structure and Policy Change: The Case of the Korea Electronics Industry", *Korean Political Science Review*, 32 (1), 133-151.
- _____. (2012) "Transitioning from Fast-Follower to Innovator: The Institutional Foundations of the Korean Telecommunications Sector", *Review of International Political Economy*, 19 (1), 140-168.
- Kim, S-Y., Baik, Y-J. and Park, Y-R. (2015) "The Historical Review of the Semiconductor Industry", *The Review of Business History*, 30 (3), 145-166.
- Kim, Y. (2017) "A Planned Spatial Modernization in East Asia: Comparative Study on Korea, Japan and China", *Journal of Geography*, 64, 3-26.

- Kim, Y-T. (2007) "'Varieties of Capitalism' and Developmental Model in Korea", *Journal of Korean Social Trend and Perspective*, 70, 45-75.
- Ko, B. and Koo, Y. (2023) "Industrial Path Changes in Shipbuilding Cities: Focusing on the Decline of the Shipbuilding Industry Since 2010s", *Journal of the Economic Geographical Society of Korea*, 26 (2), 73-95.
- Koo, H-W. (2010) "An Institutional Analysis of the Change of Industrialization Policy in Developmental State -Focused on Historical Institutionalism-", Unpublished Ph.D. dissertation, Department of Public Administration, The Graduate School, Pusan National University.
- Korea Development Institute (KDI). (2008) *Growth of the South Korean Economy and the Role of the Government: Past, Present, and future*, KDI report 2008-01.
- _____. (2011) *Korea's Capacity to Cope with Crises in a Globalized Environment*, KDI report 2011-03.
- _____. (2016) *The Development of Korea's Electronics Industry During Its Formative Years (1966-1979)*, KDI report (Government Publication # 11-1051000-000752-01).
- _____. (2017) *Case Study on Restructuring and Advancement of Key Industries*, KDI report 2017-12.
- Kuk, M. (2008) "Japan's Developmental State System: Growth and Limit of the Banking-Industrial Complex", *The Korean Journal of Humanities and the Social Sciences*, 32 (4), 13-37.
- Lall, S. (1996) *Learning from the Asian Tigers*, London: Palgrave Macmillan.
- Lee, D-J. (2018) "A Study on the Evolvment of the Japanese Developmental State System and Discourse-From Manchuria to the Wartime and Postwar Japan-", *Asian Cultural Studies*, 48, 97-124, [UCI: I410-ECN-0101-2019-910-000312025](#).
- Lee, J-C. (2016) "The Change of System of the development nation: Around the role of development of nation and regulated role", *The government learning study*, 22 (3), 157-182, [DOI: 10.19067/jgs.2016.22.3.157](#).
- Lee, K. (2016) "An Integrative Theory of Economic Catch-up", *Journal of National Academy of Sciences*, 55 (1), 509-525.
- _____. (2020) "Varieties of Capitalism and re-thinking the East Asian model of economic growth after the Covid-19: Rebalancing shareholder and stakeholder capitalism", *Seoul Journal of Economics*, 33 (4), 487-504, [DOI: 10.22904/sje.2020.33.4.001](#).

- Lee, K., Im, B. and Han, J. (2017) The National Innovation System (NIS) for the Catch-up and Post-catch-up Stages in South Korea in J. Choi, H. Kwon and M. Koo (eds.) *The Korean Government and Public Policies in a Development Nexus: Sustaining Development and Tackling Policy Challenges*, New York NY: Springer.
- Lee, K-M. and Park, S-Y. (2013) *Success Factors of the Korean Shipbuilding Industry*, Seoul: Seoul National University Press.
- Lee, R. and Wills, J. (1997) *Geographies of Economies*, London: Arnold.
- Lee, Y. (2009) "The Institutional Political Economic Developmental State Theory and Democracy", *21st century Political Science Review*, 19 (2), 99-120.
- Lee, Y-S. (2009) "Balanced Development in Globalizing Regional Development? Unpacking the New Regional Policy of South Korea", *Regional Studies*, 43 (3), 353-367, DOI: [10.1080/00343400802171981](https://doi.org/10.1080/00343400802171981).
- Lew, S. C. and Wang, H-S. (2007) "Did the Financial Crisis Transform the Developmental State – Focused on the Public Fund in Korea", *Korean Journal of Sociology*, 41 (5), 64-97.
- Lieberman, M. and Montgomery, D. (1988) "First-mover advantages", *Strategic Management Journal*, 9 (1), 41-58.
- Lim, H. (2018) *Revisiting East Asian Developmental State Model*, Seoul: Seoul National University Press.
- Lim, H-B. (2014) "The Processes and Problems of Official Development Assistance of Korea", *The Journal of Korean Policy Studies*, 14 (1), 73-102.
- Lim, H-C. (2020) "Developmental State in Asia from a Comparative Perspective: The Case of South Korea", *Asian Review*, 9 (2), 191-231, DOI: [10.24987/SNUACAR.2020.02.9.2.191](https://doi.org/10.24987/SNUACAR.2020.02.9.2.191).
- Lim, K. F. (2010) "On China's growing geo-economic influence and the evolution or variegated capitalism", *Geoforum*, 41, 677-688.
- _____. (2014) "'Socialism with Chinese characteristics': Uneven development, variegated neoliberalization and the dialectical differentiation of state spatiality", *Progress in Human Geography*, 38 (2), 221-247, DOI: [10.1177/0309132513476822](https://doi.org/10.1177/0309132513476822).
- _____. (2017a) Variegated Neoliberalization as a Function and Outcome of Neo-authoritarianism in China, in C. B. Tansel (ed.) *State of Discipline: Authoritarian neoliberalism and the contested Reproduction of Capitalist Order*, Lanham MD: Rowman & Littlefield.

- _____. (2017b) "State rescaling, policy experimentation and path dependency in post-Mao China: a dynamic analytical framework", *Regional Studies*, 51 (10), 1580-1593, DOI: [10.1080/00343404.2017.1330539](https://doi.org/10.1080/00343404.2017.1330539).
- MacKinnon, D. (2010) "Reconstructing scale: Towards a new scalar politics", *Progress in Human Geography*, 35 (1), 21-36, DOI:[10.1177/0309132510367841](https://doi.org/10.1177/0309132510367841).
- _____. (2020) "Governing uneven development: the Northern Powerhouse as a 'state spatial strategy'", *Territory, Politics, Governance*, 9 (5), 613-635, DOI:[10.1080/21622671.2020.1743202](https://doi.org/10.1080/21622671.2020.1743202).
- MacKinnon, D., Cumbers, A., Pike, A., Birch, K. and McMaster, R. (2009) "Evolution in Economic Geography: Institutions, Political Economy and Adaptation", *Economic Geography*, 85 (2), 129-150, DOI: [10.1111/j.1944-8287.2009.01017](https://doi.org/10.1111/j.1944-8287.2009.01017).
- MacKinnon, D., Dawley, S., Pike, A. and Cumbers, A. (2019) "Rethinking Path Creation: A Geographical Political Economy Approach", *Economic Geography*, 95 (2), 113-135. DOI: [10.1080/00130095.2018.1498294](https://doi.org/10.1080/00130095.2018.1498294).
- Maeil Business Newspaper. (1985) "Curious about the Manufacturing Industrial Development Act: the outline of the industrial policy [In Korean]", 13 September 1985.
- Mahoney, J. and Thelen, K. (eds.) (2010) *Explaining Institutional Change: Ambiguity, Agency and Power*, Cambridge: Cambridge University Press
- Markusen, A. and Park, S-O. (1993) "The state as industrial locator and district builder: The case of Changwon, South Korea", *Economic Geography*, 69 (2), 157-181, DOI: [10.2307/143534](https://doi.org/10.2307/143534).
- Martin, R. (2010) "Rethinking regional path dependence: Beyond lock-in to evolution", *Economic Geography*, 86, 1-27.
- Martin, R. and Sunley, P. (2006) "Path dependence and regional economic evolution", *Journal of Economic Geography*, 6, 395-437, DOI:[10.1093/jeg/lb1012](https://doi.org/10.1093/jeg/lb1012).
- _____. (2015) "Towards a Developmental Turn in Evolutionary Economic Geography?", *Regional Studies*, 49 (5), 712-732, DOI:[10.1080/00343404.2014.899431](https://doi.org/10.1080/00343404.2014.899431).
- Messey, D. (2013) "Vocabularies of the economy", *A Journal of Politics and Culture*, 54, 9-22.
- McMichael, P. (1990) "Incorporating Comparison within a World-Historical Perspective: An Alternative Comparative Method", *American Sociological Review*, 55 (3), 385-397.

- Moon, D. and Chung, J-Y. (2014) "From 'Developmental State Model' to 'Neo-Liberal Model': A Critical Review on the Debate over Korean Development Model", *Journal of Asia-Pacific Studies*, 21 (2), 129-163.
- Morgan, G. (2016) "Exploring 21st Century Capitalisms and Asia: The Impact of Financialization", *Asia Review*, 5 (2), 39-62.
- Museum of Korean History. (2014) *The Industrialization of the Heavy and Chemical Industry and Social Change in Korea*, Museum of Korean History series on Modern Korean History (MONO1201435189).
- Nakano, K. (2020) Neoliberal Turn of State Conservatism in Japan: From Bureaucratic to Corporatist Authoritarian Legality, in Chen, W. and Fu, H. (eds.) *Authoritarian Legality in Asia: Formation, Development and Transition*, Cambridge University Press: Cambridge.
- North, D.C. (2005) *Understanding the Process of Economic Change*, Princeton, NJ: Princeton University Press.
- O, W-C. (1995) *The Korean Economic Development: Engineering Approach*, Seoul: Kia Economic Research Institute.
- O'Brien, R. (1992) *Global financial integration: the end of geography*, New York NY: Council on foreign Relations Press.
- Organisation for Economic Cooperation and Development (OECD). (1996) *The Korean system of innovation and the semiconductor industry: a governance perspective*, SPRU/SEI-Working paper.
- _____. (2019) *Global value chains and the shipbuilding industry*, OECD Science, Technology and Industry Working Papers 2019/08, DOI: [10.1787/7e94709a-en](https://doi.org/10.1787/7e94709a-en).
- Ohmae, K. (1990) *The borderless world: power and strategy in the interlinked economy*, London: Harper Collins.
- Ong, A. (2007) *Neoliberalism as exception: Mutation in Citizenship and Sovereignty*, Durham NC, Duke University Press.
- Paik, J-K. (1998) "A Critical Review of 'the Crisis Theory' of East-Asian Model", *Korean Political Science Review*, 32 (3), 95-116.

- Park, B-G. (2006) "A Spatial Process of Neo-liberalisation in the Asian Developmental States: Spatially Selective liberalisation in South Korea and Malaysia", *Space and Environment*, 25, 8-40.
- _____. (2008) "Uneven Development, Inter-scalar Tensions, and the Politics of Decentralization in South Korea", *International Journal of Urban and Regional Research*, 32 (1), 40-59.
- _____. (2012) "Regional Policies and State Spaces in South Korea", *Memory & Vision*, 27, 81-130.
- Park, B-G., Chang, S-H. and Gimm, D-W. (2014) *The Birth of Industrial Landscapes in Korea: A Multi-scalar Understanding of the Industrial Complex Development in the Era of State-led Developmentalism* [In Korean], Seoul: Alt.
- Park, B-G., and Gimm, D-W. (2013) *State and Localities: Seeing Regions in Korea from a Multi-scalar Perspective* [In Korean], Seoul: Alt.
- Park, B-G., Hill, R.C., and Saito, A. (2012) *Locating Neoliberalism in East Asia: Neoliberalizing Spaces in Developmental States*, Oxford: Blackwell.
- Park, B-G., Lee, S-O. and Cho, S-C. (2017) *Spaces of Exception in East Asia* [In Korean], Seoul: Alt.
- Park, H-j. and Doucette, J. (2016) "Financialization or capitalization? Debating capitalist power in South Korea in the context of neoliberal globalization", *Capital & Class*, 40 (3), 1-22. DOI: [10.1177/0309816816667425](https://doi.org/10.1177/0309816816667425).
- Park, J-H. (2020) "A Cultural Political Economy of Variegated Capitalism: Ngai-Ling Sum and Bob Jessop's Trans-disciplinary Approach of Capitalism", *Economy and Society*, 126, 476-525, DOI: [10.18207/criso.2020.126.476](https://doi.org/10.18207/criso.2020.126.476).
- Park, S-H., Kim, D-S. and Jwa, S-H. (2008) *A Study on Agglomeration Economies in Korean Regions*, Gyeonggi Research Institute Report (2008-4).
- Park, S-Y. (2010) "Crafting and Dismantling the Egalitarian Social Contract: The Changing State-Society Relations in Globalizing Korea", *The Pacific Review*, 23 (5), 579-601.
- _____. (2012) "Exploring Korea's Emerging 'Post-Developmental' State: Research Trends and Agendas since the 1990s", *Journal of Contemporary Politics*, 5 (1), 63-90.
- _____. (2015) "Analysis on the Cohabitation of Developmentalism and Neoliberalism in Korea: Changes in the Korean Developmental State since the 1990s and Varieties of Developmental-Neoliberal Mixes", *Journal of Asia-Pacific Studies*, 22 (4), 5-40, UCI: [I410-ECN-0101-2016-910-002207987](https://nrid.or.kr/uc/1410-ECN-0101-2016-910-002207987).

- Park, Y-G. (2008) "Process and Character of 4 Core Plants Pla, 1969.11-1971.11", *Review of Economic History*, 44, 81-107.
- _____. (2016) "What Really Happened in the Beginning of Korean Modern Shipbuilding Industry in 1971?", *Journal of Koreanology*, 61, 431-462, DOI: [10.15299/jk.2016.11.61.431](https://doi.org/10.15299/jk.2016.11.61.431).
- _____. (2018) *Heavy and Chemical Industrialization in Korea: Shipbuilding Industry* [In Korean], Seoul: Haenam.
- _____. (2021) *Heavy and Chemical Industrialization in Korea: Electronics Industry* [In Korean], Seoul: Haenam.
- Patterson, N. P., Tenold, S. and White, N. J. (2019) *Shipping and Globalization in the Post-War Era: Contexts, Companies, Connection*, London: Palgrave Macmillan.
- Pauly, L. and Reich, S. (1997) "National Structure and Multinational Corporate Behavior: Enduring differences in the Age of Globalization", *International Organization*, 51 (1), 1-30.
- Peck, J. (2011) "Neoliberalizing states: thin policies/hard outcomes", *Progress in Human Geography*, 25 (3), 445-455.
- _____. (2017) "Transatlantic city, part I: Conjunctural urbanism", *Urban Studies*, 54 (1), 4-30, DOI: [10.1177/0042098016679355](https://doi.org/10.1177/0042098016679355).
- _____. (2023) *Variegated Economies*, Oxford: Oxford University Press.
- _____. (2024) "A place to start?", *Environment and Planning A: Economy and Space*, 56 (5), 1569-1576, DOI: [10.1177/0308518X231198008](https://doi.org/10.1177/0308518X231198008).
- Peck, J. and Theodore, N. (2007) "Variegated capitalism", *Progress in Human Geography*, 31 (6), 731-772, DOI: [10.1177/0309132507083505](https://doi.org/10.1177/0309132507083505).
- _____. (2012) "Follow the policy: a distended case approach", *Environment and planning A: Economy and Space*, 44, 21-30, DOI: [10.1068/a44179](https://doi.org/10.1068/a44179).
- _____. (2016) "Macroeconomic geographies", *Area Development and Policy*, 1 (3), 305-322, DOI: [10.1080/23792949.2016.1237263](https://doi.org/10.1080/23792949.2016.1237263).
- Peck, J. and Zhang, J. (2013) "A variety of capitalism...with Chinese characteristics?", *Journal of Economic Geography*, 13, 357-396, DOI: [10.1093/jeg/lbs058](https://doi.org/10.1093/jeg/lbs058).
- Pike, A. (2020) "Coping with deindustrialization in the global North and South", *International Journal*

of Urban Sciences, DOI: [10.1080/12265934.2020.1730225](https://doi.org/10.1080/12265934.2020.1730225).

_____. (2021) "A geographical political economy response to commentaries on 'Coping with deindustrialization in the global North and South", *International Journal of Urban Sciences*, DOI: [10.1080/12265934.2021.1910068](https://doi.org/10.1080/12265934.2021.1910068).

Pike, A., Birch, K., Cumbers A., MacKinnon, D. and McMaster, R. (2009) "A Geographical Political Economic of Evolution in Economic Geography", *Economic Geography*, 85 (2), 175-182, DOI: [10.1111/j.1944-8287.2009.01021](https://doi.org/10.1111/j.1944-8287.2009.01021).

Pike, A., MacKinnon, D., Cumbers, A., Dawley, S. and McMaster, R. (2016) "Doing Evolution in Economic Geography, *Economic Geography*, 92 (2), 123-144, DOI: [10.1080/00130095.2015.1108830](https://doi.org/10.1080/00130095.2015.1108830).

Pirie, I. (2005) "The new Korean state", *New Political Economy*, 10 (1), 25-42, DOI: [10.1080/13563460500031172](https://doi.org/10.1080/13563460500031172).

_____. (2008) *The Korean Developmental State: From dirigisme to neo-liberalism*, London: Routledge.

_____. (2012) "The new Korean political economy: beyond the models of capitalism debate", *The Pacific Review*, 25 (3), 356-386, DOI: [10.1080/09512748.2012.685092](https://doi.org/10.1080/09512748.2012.685092).

_____. (2016) "Korea and the global economic crisis", *The Pacific Review*, 29 (5), 671-692, DOI: [10.1080/09512748.2015.1032337](https://doi.org/10.1080/09512748.2015.1032337).

_____. (2018) "Korea Taiwan: The Crisis of Investment-Led Growth and the End of the Developmental State", *Journal of Contemporary Asia*, 48 (3), 1-26, DOI: [10.1080/00472336.2017.1375136](https://doi.org/10.1080/00472336.2017.1375136).

Rhee, J-C. (2016) "The Institutional Transformation of Developmental States: A Focus on Developmental and Regulatory Roles of the State", *Journal of governmental Studies*, 22 (3), 157-182.

Ryu, S-Y. and Lee, S. (2003) "The Korea-Japan Economic Relations and the Flying-Geese Model", *The Korean Journal of International Studies*, 43 (2), 175-199.

Samsung Newsroom. (2010) "Why We Must Enter the Semiconductor Business", 25 March 2010.

Sayer, A. and Morgan, K. (1985) A modern industry in a declining region: links between method, theory and policy, in Massey, D and Meegan, R. (eds.) *Politics and Method*, London: Routledge.

Seoul Institute of Economy and Society (SIES) (2015) *Korean Economy, New Directions and Reform*

Issues, Paju: Hanul.

Sheppard, E. (2011) "Geographical political economy", *Journal of Economic Geography*, 11, 319-331, DOI: [10.1093/jeg/lbq049](https://doi.org/10.1093/jeg/lbq049).

Shin, J-S. and Chang, H-J. (2003) *Restructuring Korea Inc.*, London: Routledge.

Shin, J-S. and Jang, S-W. (2006) *Dissecting the Secrets Behind Samsung Semiconductor's Global Dominance*, Seoul: Samsung Economic Research Institute (SERI).

Sial, F. and Doucette, J. (2020) "Inclusive partners? Internationalising South Korea's chaebol through corporate social responsibility-linked development cooperation", *Third World quarterly*, 41 (10), 1723-1739, DOI:[10.1080/01436597.2020.1782185](https://doi.org/10.1080/01436597.2020.1782185).

Son, S-H. and Kim, D-H. (2016) *Challenges in the Development of Small and Medium Enterprises Finance*, Seoul: Korea Institute of Finance.

Sonn, J-W. (2006) "Reinterpreting the Spatial Dimensions of the Developmental State: With a Case Study of South Korea, 1970's", *Space and Environment*, 25, 41-79.

Sonn, J-W. and Choi, M-J. (2017) "The East Asian Model of Spatial Planning: A Lefebvrian Theorisation based on Developmentalist Planning in South Korea and China", *Paper presented at 14th International Congress of Asian Planning School Association (APSA)*.

Sonn, J-W. and Hsu, L-F. (2020) "Geopolitics and economic geography: a commentary on Andy Pike's geographical political economy", *International Journal of Urban Sciences*, DOI: [10.1080/12265934.2020.1828148](https://doi.org/10.1080/12265934.2020.1828148).

Sorensen, A. (2005) The Developmental State and the Extreme Narrowness of the Public Realm: The Twentieth Century Evolution of Japanese Planning Culture, in Sanyal, B. (ed.) *Comparative Planning Cultures*, London: Routledge.

Streek, W. and Thelen, K. (2005) *Beyond Continuity: Institutional Change in Advanced Political Economies*, Oxford: Oxford University Press.

Stubbs, R. (2009) "What ever happened to the East Asian Developmental State? The unfolding debate", *The Pacific Review*, 22 (1), 1-22, DOI:[10.1080/09512740802650971](https://doi.org/10.1080/09512740802650971).

Suh, M-G. (2020) "A Comparative Analysis of Developmental Pathway and the Role of the State in East Asia", *Asia Review*, 10 (1), 27-52, DOI:[10.24987/SNUACAR.2020.08.10.1.27](https://doi.org/10.24987/SNUACAR.2020.08.10.1.27).

The Bell. (2022) "Samsung Electronics, 86% of revenue comes from transactions with overseas affiliates, structural reasons?", 27 June 2022.

The Economist. (2012) "The rise of state capitalism", 21 January 2012.

_____. (2018) "Chip wars: China, America and silicon supremacy", 01 December 2018.

_____. (2019) "After half a century of success, the Asian tigers must reinvent themselves", 05 December 2019.

The government of Korea. (2023a) *15 National High-Tech Industrial Complexes Established for Building on Advanced Industry Ecosystem*, Government Press Release on 15th March 2023.

_____. (2023b) *Current status and Plans for National High-Tech Industry Promotion Policies*, An unpublished government report in October 2023.

_____. (2023c) *K-Shipbuilding, Next Generation Leadership Strategy*, published government report, 15th November 2023.

Thelen, K. (2009) "Institutional Change in Advanced Political Economies", *British Journal of Industrial Relations*, 47 (3), 471-498, [DOI:10.1111/j.1467-8543.2009.00746.x](https://doi.org/10.1111/j.1467-8543.2009.00746.x).

The society of Naval Architecture of Korea. (2015) *Shipbuilding Technology*, Seoul: Jiseongsa.

Thurbon, E. (2016) *Developmental Mindset: The Revival of Financial Activism in South Korea*, Ithaca: Cornell University Press.

Thurbon, E. and Weiss, L. (2016) The Developmental State in the late twentieth century, in Reiner, E., Ghosh, J and Kattel, R. (eds.) *Handbook of Alternative Theories of Economic Development*, Cheltenham: Edward Elgar.

Wade, R. (1990) *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization*, Princeton NJ: Princeton University Press.

_____. (1992) "East Asia's Economic Success: Conflicting Perspectives, Partial Insights, Shaky Evidence", *World Politics*, 42 (2), 270-320.

_____. (2018) "The Developmental State: Dead or Alive?", *Development and Change*, 49 (2), 518-546, [DOI:10.1111/dech.12381](https://doi.org/10.1111/dech.12381).

- Waite, D. (2022) "Critical realist perspectives on the urban growth system", *Environment and Planning A: Economy and Space*, 54 (6), 1219-1235, DOI:10.1177/0308518X221102958.
- Whiteside, H., Alami, I., Dixon, A. and Peck, J. (2022) "Making space for the new state capitalism, Part I: Working with a troublesome category", *Environment and Planning A: Economy and Space*, 55 (1), 63-71, DOI:10.1177/0308518X221140186.
- Won, J. (2010) "The Extended Case Method – A Happy Marriage Between Sociology and Ethnography?", *Discourse* 201, 13 (1), 151-178.
- Wong, J. (2004) "From Learning to Creating: Biotechnology and Post-industrial Development State in Korea", *Journal of East Asian Studies*, 4 (3), 491-517.
- Woo, J. (1992) *Race to the Swift: State and Finance in Korean Industrialization*, New York NY: Columbia University Press.
- Woo, J. (2019) "Regional Path-dependence and Lock-in involved in the Single Industry: A Case Study of the Shipbuilding Industry in Geoje, Gyeongnam", Unpublished MA dissertation, Department of Geography, The Graduate School, Dongguk University.
- Woo, Y-S. (2003) "Spatial Features of Production Networks on Korean Shipbuilding: The Case of Samsung Heavy Industry in Koje, Korea", *Journal of the Economic Geographical Society of Korea*, 6 (1), 99-117.
- _____. (2004) "A Study on the Spatial Feature of Shipbuilding Subcontract Structures", *Journal of the Korean Geographical Society*, 39 (1), 116-131.
- Woo, J. and Lee, S-C. (2018) "Regional Lock-ins in the Shipbuilding Industry in Geoje, Gyeongnam", *The Geographical Journal of Korea under The Korean Association of Professional Geographers*, 52 (4), 567-580.
- Woo-Cumings, M. (1999) *The Developmental State*, Ithaca NY: Cornell University Press.
- World Bank (1993) *The East Asian miracle: Economic Growth and Public Policy*, Oxford: Oxford University Press.
- Yeung, H. (1997) "Critical realism and realist research in human geography: a method or a philosophy in search of a method?", *Progress in Human Geography*, 21 (1), 51-74.

- _____. (1998) "Capital, state and space: contesting the borderless world", *Transactions of the Institute of British Geographers*, 23 (3), 291-309.
- _____. (2003) "Practicing New Economic Geographies", *Annals of the Association of American Geographers*, 93 (2), 442-462.
- _____. (2016) *Strategic Coupling: East Asian Industrial Transformation in the New Global Economy*, Ithaca NY: Cornell University Press.
- _____. (2019a) "What kind of theory for what kind of human geography?", *Dialogues in Human Geography*, 9 (3), 283-292, [DOI:10.1177/2043820619875361](https://doi.org/10.1177/2043820619875361).
- _____. (2019b) "Rethinking mechanism and process in the geographical analysis of uneven development", *Dialogues in Human Geography*, 9 (3), 226-255, [DOI:10.1177/2043820619861861](https://doi.org/10.1177/2043820619861861).
- _____. (2023) "Theory and explanation in geography revisited: Mid-range causal theories and explanatory conjuncturalism", *Dialogues in Human Geography*, 14 (3), 483-487 [DOI:10.1177/20438206231177074](https://doi.org/10.1177/20438206231177074).
- Yeung, H. and Lin, G. (2003) "Theorizing Economic Geographies of Asia", *Economic Geography*, 79 (2), 107-128, [DOI: 10.1111/j.1944-8287.2003.tb00204.x](https://doi.org/10.1111/j.1944-8287.2003.tb00204.x).
- Yin, R. K. (2014) *Case Study Research: Design and Methods (5th ed.)*, Thousand Oaks CA, SAGE.
- Yoon, S-W. (2006) "The Rise and Decline of the Korean Developmental State in the Context of World-system Conditions, 1960~1990", *ECONOMY AND SOCIETY*, 69-94.
- _____. (2009) "Internalizing Neoliberal Globalization in Korea: A Case for 'Developmental Neoliberalization'", *Economy and Society*, 83. 40-68.
- _____. (2020) "Transformations of the Developmental State into the Post-Developmental State: Experiences of South Korea, Japan and Taiwan", *Asian Review*, 9 (2), 159-189.
- Zhang, J. and Peck, J. (2016) "Variegated Capitalism, Chinese Style: Regional Models, Multi-scalar Constructions", *Regional Studies*, 50 (1), 52-78, [DOI:10.1080/00343404.2013.856514](https://doi.org/10.1080/00343404.2013.856514).
- Zhu, S. and He, C. (2019) "Moving beyond Anglo-American economic geography: the significance of non-Anglo-American model", *International Journal of Urban Sciences*, 23 (2), 191-197, [DOI: 10.1080/12265934.2018.1470551](https://doi.org/10.1080/12265934.2018.1470551).

Appendix A - Semi-structured interview questions for the first fieldwork

Interview questions (Fieldwork in March-June 2022)

Dissertation Title

Evolution to the Post-Developmental State in Variegated Capitalism? A comparative study on deindustrialisation, regional development and policy in South Korea

Aims of the fieldwork

1. Figure out the differences in the process of determining industrial/regional policy in the developmental state and the post-developmental state period and identify the practices and customs that still remain from the developmental period.
2. Identify the responses of subnational state to changes in national industrial/regional strategies and the internal processes at subnational level
3. Figure out the interests of key actors in the local level to understand the networks between the public and industrial sectors at the subnational level.

Interviews with national state level actors (Central government and research institutes)

1. Evolution of institutions from the developmental state to the post-developmental state

1-1. In academia, the period of the developmental state is considered from the 1960s to the 1990s, and the period of after that is regarded as the post-developmental state period, whether there is a political/institutional difference between the two period in the central government?

1-2. The biggest difference between the two periods is the dissolution of the Economic Planning Board (EPB), how much influence did the EPB have on Korea's industrial/regional development policy?

1-3. Was the function of the EPB evenly distributed or transferred to other organisations after the EPB was dismantled?

2. Policy governance change

2-1. The post-developmental state aims for governance harmonise with national state, subnational state and private sectors rather than centralised government, is it really?

2-2. After the participatory government (2003-2008), the change from top-down policy implementation to bottom-up policy implementation was promoted in relation to subnational

states, local government. Have these cases where policies promoted by local governments been implemented?

2-3. How much has the role of the central government reduced in relation to the industrial sectors? How are opinions coordinated between the state and industrial sector in the national industrial strategies?

2-4. How to overcome policy inefficiencies in the post-developmental period?

3. Financialisation of industrial capital

3-1. Korea has achieved rapid growth with a strategy to foster specific corporations or industries. So now, when the government want to foster a particular industry, what ways do the government adopt?

3-2. In the case of the shipbuilding industry, it is understood that the Korean Development Bank (KDB) supports insolvent shipyards rather than fostering the industrial sector, but is it still possible to control the industry through the marketisation and financialisation of industrial capital?

3-3. Even if KDB exercises management rights as a major shareholder, the government's influence will inevitably be affected, but how does it go through the coordination process if the government and companies disagree?

3-4. Considering the relationship between the blue hose (Presidential office), the central government, and the KDB and the industrial sectors, can Korea be regarded as the state of financialisation and marketisation of industrial capital?

4. Regional Industrial strategies

4-1. Since the 2000s, there have been more industrial/regional plans than comprehensive national land and economic development plans, who is the subject of overall national industrial/regional policies?

4-2. Are national strategic industries and regions still valid?

4-3. It's a difficult time to benefit a particular industry, company, and region as in the past, but if it needs to help to a specific corporation, what can the central government do?

Interviews with civic sector (Local government and institutes)

1. Local industrial and economic structure depending on the shipbuilding industry

1-1. what is the proportion of the shipbuilding industry in the Geoje's industrial structure i.e. proportion of population and corporate tax revenue from the shipyards?

1-2. How strong is the impact of the boom and recession in the shipbuilding industry coming to the local economy?

1-3. For about 4 years from 2018, Geoje received help from the central government to respond to the industrial crisis, and specifically, how did the central government help Geoje?

1-4. When implementing the central government's aid, was there an opportunity to coordinate opinions between the local and the central government?

2. Local and regional institutional changes

2-1. By the 1990s, the central government's industrial and regional strategies were strong, so local government were understood as marginalised and passive. Has the role of local governments changes since the 2000s?

2-2. It is thought that the role of local government became significant as decentralisation was implemented in the early 2000s. Is there a case in which Geoje has made major decisions in industrial and regional policies?

2-3. In Geoje case, the connection with the two shipyards will be prominent, but how will cooperation with the shipyards be achieved?

2-4. How can I draw the relationship between local government, central government, and industrial sector in Geoje?

3. Major actors at subnational level

3-1. Since most of Geoje's production comes from the shipbuilding industry, the role of actors related to the shipbuilding industry is expected to be large. Is it the same in reality?

3-2. Is there a difference between the past when there was a lot of central government intervention and the present?

3-3. It has been 50 years the first shipyard was constructed, is there any regional unofficial actors (A Korean contextual person who has lived in the area for a long time, owns a large amount of land in the area, and influences development policies) that affects industrial regional policies?

4. National Industrial Complex

4-1. There are two national industrial complexes in Geoje, who is the main agent of the development plan of these old industrial complexes?

4-2. Geoje is known to have been making efforts to create an Ocean Plant Industrial Complex for many years, what do the two shipyards and the central government think of this and what will be done in the future?

4-3. Do you think the reason why industrial complexes are not developed as intended by Geoje is because the power of the central government is still strong?

Interviews with industrial sector (Trade Union, shipyards, and related organisations)

1. The relationship between government and industrial sector

1-1. How do I draw the relationship between the central government, local government, and industrial sector (shipyards)?

1-2. What benefits did the shipyards receive when the government strategically fostered the shipbuilding industry?

1-3. Was there any role of local government in fostering the shipbuilding industry? If there was, what kind of role would it be?

2. Reduction of national intervention and strategies for the shipbuilding industry fostering

2-1. What has the most since the government's strategic industry fostering policy?

2-2. What competitiveness did the government's policy to foster the shipbuilding industry beat the Japanese shipbuilding Industry?

2-3. Do you think the international competitiveness of the Korean shipbuilding industry has been declining since government intervention has decreased?

3. The relationship between the large shipyards and subcontractors

3-1. A large part of the shipyards' work is handled by subcontractors, and what is the relationship with them and who is the management entity?

3-2. I understand that the benefits for workers and subcontractors in the past was not so good, but did the government know this and overlook it?

3-3. Is there any change in the contractual relationship between shipyards and subcontractors since the 2000s? i.e. compliance with labour laws, legal contracts, protection of strike action rights etc.

4. State intervention in business activities

4-1. Has there been state intervention in production processes of technologies?

4-2. Do you think the government's remedy for insolvent shipyard is appropriate?

4-3. Some people point out that the government did not intervene in the issue of acquiring shipyards in Geoje, but do you think the decrease in government intervention affected the restructuring of the Korean shipbuilding industry?

5. Production networks

5-1. The shipbuilding industry is greatly influenced by the steel and shipping industries, did the government intervene in the production networks between these industries?

5-2. How much steel materials made by POSCO are used in Korea?

5-3. Japan has a steady demand for ships in its shipping industry, but ships are export products in Korea. How to respond to fluctuations in ship demand due to the global shipping industry's market condition?

5-4. How does the network between linked industries operate according to fluctuations in ship demand?

Appendix B - Semi-structured interview questions for the second fieldwork

Interview questions (Fieldwork in September-October 2022)

Dissertation Title

Evolution to the Post-Developmental State in Variegated Capitalism? A comparative study on deindustrialisation, regional development and policy in South Korea

Aims of the fieldwork

1. Identify if Korea's electronics (semiconductor) industry follows the typical path of changing from the developmental state's strategies to the post-developmental state's strategies.
2. Figure out why the growth of the semiconductor industry was centred on the firms and why the role of the state was reduced in terms of industrial policies.
3. Figure out the role of the subnational government between reducing the role of the state and increasing the role of the firms in the semiconductor sector.

Interviews with national state level actors (Central government and research institutes)

1. Evolution of institutions from the developmental state to the post-developmental state

1-1. It is understood that Korea's economic development paradigm has changed before and after the financial crisis in 1997, but has there been any drastic change around the late 1990s in terms of overall economic/industrial development policy?

1-2 In academia, the period of the developmental state is considered from the 1960s to the 1990s, and the period of after that is regarded as the post-developmental state period, do you think there are examples of institutional and systemic changes in the central government that can clearly distinguish between state developmentalism and post-developmentalism?

1-3. In my opinion, the dismantling of the leading economic development organisation (Economic Planning Board, EPB) and the dispersion of functions are one of the main characteristics of the post-developmental state. How much influence did the EPB have on Korea's industrial/regional development policy before it was dismantled and did the dismantling of the EPB become an opportunity for the actual centralised function to be dispersed?

1-4. Even though many things have been dispersed and changed as Korea enter the post-developmental state, state developmentalism still seems to remain in terms of central government management. Are there specific examples at the central government level?

2. Industrial Policies (Ministry of Industry, National Industrial Institute)

2-1. In Korea, policies to foster specific industries, such as the OO industry promotion policy, have decreased compared to the developmental period. Nevertheless, there are still macroscopic industrial development policy at the national state level, and how it works in the post-developmental era?

2-2. In the national industrial policy, the target changes according to the economic development and industrial development situation, currently 14 leading industries are designated. Are they affected by the central government's policy similar to the past (1960s-1980s)?

2-3. In the case of the electronics industry, the Ministry of Industry, the Ministry of Science and Technology, and the Ministry of SMEs and Startups are all involved in policy, but is there a central government system that integrally manages them?

2-4. U.S. President Joe Biden was the first to look around Samsung Electronics when he visited Korea in May. If there are major issue at the national level, how long does it take to implement industrial policy?

2-5. The electronics industry creates large-scale investment, and the shipbuilding industry creates large-scale employment, which industrial type is more preferred at the central government level?

3. Industrial Capital

3-1. In the developmental state period, industries were developed with domestic capital or foreign loans. But now that inward FDI is a major part of industrial capital, what incentives are used attract foreign investment at the national level?

3-2 Public funds such as the National Pension Service are investing heavily in Korea, and to what extent do these institutions affect corporate management? And can it be possible to be pressured the fund to invest in certain industries for the national level industrial strategy?

3-3. As an example of the above question, it is understood that the Korean Development Bank (KDB) supports insolvent shipyards. This is understood as an act by the state to prevent the decline of major industries, is this right?

3-4. Despite the financialisation and globalisation of industrial capital, public funds account for a large portion of the traditional (mainly heavy and chemical) industries. Are the industries fostered during the developmental period still greatly affected by the national level industrial strategies?

3-5. How can the state intervene, if necessary, in industrial sectors with high private investment such as the semiconductor industry?

4. Regional Industrial strategies

4-1. During the developmentalist era, the policy of driving a particular industry to a particular region was very efficient, even if it resulted in uneven development. However, this was also shown in the industrial cluster policy during the post-developmental period, can this be seen as an extension of the old regional industrial strategy?

4-2. Regional industrial policy during the post-developmental state rooted in RIS concepts. Are there any cases in which innovation has actually occurred within the region and led to the centre?

4-3. Is there a policy strategy at the national state level that allows knowledge and technology to spread locally within large-scale industrial complexes such as Samsung Electronics' campus?

4-4. Now, many regions are competing to attract semiconductor factories. What factors influence the location decision of high-tech industries at the national level?

Interviews with subnational level (Local government and institutes)

1. Local industrial and economic structure depending on the semiconductor/shipbuilding industry

1-1. what is the proportion of the shipbuilding industry in the Geoje's industrial structure i.e. proportion of population and corporate tax revenue from the shipyards?

1-2. How strong is the impact of the boom and recession in the shipbuilding industry coming to the local economy?

1-3. For about 4 years from 2018, Geoje received help from the central government to respond to the industrial crisis, and specifically, how did the central government help Geoje?

1-4. When implementing the central government's aid, was there an opportunity to coordinate opinions between the local and the central government?

1-5 The electronics industry creates large-scale investment and the shipbuilding industry creates large-scale employment, which industrial type is more preferred at the subnational government level?

2. Local and regional institutional changes

2-1. By the 1990s, the central government's industrial and regional strategies were strong, so local government were understood as marginalised and passive. Has the role of local governments changes since the 2000s?

2-2. It is thought that the role of local government became significant as decentralisation was implemented in the early 2000s. Is there a case in which Geoje has made major decisions in industrial and regional policies?

2-3. In Geoje case, the connection with the two shipyards will be prominent, but how will cooperation with the shipyards be achieved?

2-4. How can I draw the relationship between local government, central government, and industrial sector in Geoje?

3. Major actors at subnational level

3-1. Since most of Geoje's production comes from the shipbuilding industry, the role of actors related to the shipbuilding industry is expected to be large. Is it the same in reality?

3-2. Is there a difference between the past when there was a lot of central government intervention and the present?

3-3. It has been 50 years the first shipyard was constructed, is there any regional unofficial actors (A Korean contextual person who has lived in the area for a long time, owns a large amount of land in the area, and influences development policies) that affects industrial regional policies?

4. National Industrial Complex

4-1. There are two national industrial complexes in Geoje, who is the main agent of the development plan of these old industrial complexes?

4-2. Geoje is known to have been making efforts to create an Ocean Plant Industrial Complex for many years, what do the two shipyards and the central government think of this and what will be done in the future?

4-3. Do you think the reason why industrial complexes are not developed as intended by Geoje is because the power of the central government is still strong?