

Sung-Hee Jwa

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A General Theory of Economic Development

Towards a Capitalist Manifesto



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This book is dedicated to the future prosperity of Earth's
7 billion human inhabitants.

A General Theory of Economic Development

Towards a Capitalist Manifesto

Sung-Hee Jwa

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Preface

The world finds itself in turbulent times. For the past few decades, despite the good intentions of democratic leadership and policy-makers all over the world, not only economic, but also social, political and security problems have increasingly eroded humanity's potential for future prosperity and peaceful coexistence. Regarding the economy, more and more people can be heard voicing their concerns about long-term stagnation of economic growth and worsening income distribution (economic polarization). Not only economic policy-making, but also economic theory seems to be in disarray. Market-centric views on the one hand, and proponents of government-led structural reforms on the other, seem constantly in conflict with one another. Liberal democracy has been almost completely drowned out by ever-burgeoning egalitarian-leaning social democratic systems, which seem to have enthusiastically absorbed socialists' traits despite the collapse of the socialist blocs in the 1990s. Despite having tried to reduce inequalities to create a 'balanced' world in the past several decades, we have become, on the contrary, even more unequal and imbalanced. This book takes on these important concerns and challenges to find a way out of the current conundrum.

The key idea in this book is 'economic discrimination*', which I define as 'treating differences differently'. Economic institutions and policy, I have argued here and elsewhere, must endorse economic discrimination if there is to be any hope for economic development. The word 'discrimination', however, is rather controversial, especially when referring to socio-political discrimination such as race and gender discrimination. And maybe some explanation for the usage of this word is due. In this book, I return to the original meaning of the word 'discrimination' as meaning merely 'the act of distinguishing'. Hence, to talk of economic discrimination I mean the treatment or consideration of, or making a distinction in favour of or against, a person or thing based on economic performance. I am not by any means referring to discrimination based on certain groups, classes or categories which that person or thing is perceived to belong, and which is not based on economic merit. While moral philosophers have traditionally defined discrimination as 'disadvantageous' treatment or consideration, I view economic discrimination as 'advantageous' treatment of economically

more viable entities vis-à-vis their compatriots. Both views are a comparative definition of the term 'discrimination', but mine is a purely an economic concept which I argue is key to economic development. After a long deliberation, I came to believe that the world as well as markets in particular do indeed practice economic discrimination tirelessly.

Incidentally, the idea of economic discrimination is not new. More than 2000 years ago, the Chinese Legalist school seemed to refer to economic discrimination by writing that one should "never fail to reward the merit or let the fault go unnoticed" or what was known as 'the dispensation of justice' (賞罰 in Chinese, 신상필벌 in Korean). In the West, the Scottish author and government reformer Samuel Smiles (1812-1904), for example, could often be heard saying that, 'Heaven helps those who help themselves'⁹, which reflects the story of 'Three Servants' in Matthew 25 in the Bible. My personal thinking on economic discrimination has developed over many years and I am quite confident that herein lies the dispensation of justice⁵, in other words economic discrimination which is in fact a distinguishing feature of markets, that is key to the economic development process.

Like freedom and democracy, 'development'⁵ is a slippery concept. In this book, development is viewed as an order-transformation process whereby an economy 'upgrades' in leaps and bounds from an agrarian wagon economy to the industrial and knowledge-based railway, automobile, aeroplane and spaceship economies, and so on. This view is in line of the eminent economist Joseph A. Schumpeter and with the complexity and evolutionary economics approaches. I find that there is only very little in the economics literature that explains the process of economic development in a comprehensive and simple manner. Sometimes, as with the classical economists such as Adam Smith (1723-1790) and Friedrich A. Hayek (1899-1992), preconditions are provided such as secure property rights and economic freedom; and sometimes it is described merely in terms of gross domestic product and its components, largely influenced by the growth accounting school; but no really satisfactory single coherent explanation of the economic development process seems to exist in the literature. Economic development is indeed complicated and many studies tend to focus on only a narrow aspect of the economy, which is sometimes unsatisfactory, especially when one would like a comprehensive overview of the economic development process. As such, I have for many years had the ambition to develop and provide a simple or general explanation of how economic development occurs. The result is the new General Theory of Economic Development provided in this book, which rather than merely describing what development is, tries to characterize and explain how economic development comes about; particularly,

by better understanding how economic discrimination brings about the right incentives for development, that is, by reigiiting the people's 'self-help' spirit towards creating a better future for themselves and for their communities. Moreover the General Theory of Economic Development will emphatically demonstrate that economic development is impossible without capitalism, despite the criticisms by some authors that label the capitalist system as a failed, contradictory system unable to deliver on the promises of growth and prosperity.

As a last point, one of the main warnings presented in this book is that we should beware of the egalitarian ideas and ethos that so eagerly creep into our institutions and policy initiatives, as they are the primary cause of economic stagnation and decline. Complexity science, and even ancient Chinese philosophers as mentioned above, have appreciated the importance of diversity and ⁴treating differences differently*. In fact, one of my ancestors, Zuo Qiu Ming (左丘明), who was a well-known contemporary of the Great Confucius, mentioned in his *Kokugo* (國語) that 'harmonizing differences will create a new life order while equalizing differences will stop their creation* (和則生物, 同則不繼). That is, equal treatment or equalization can halt the process of creation and dry out the seeds of dynamism. Demanding equality without reference to contribution will definitely backfire by killing not only others* but also one's own incentives to grow and develop. 'Treating differences the same way', or what I refer to as 'egalitarianism', is the surest way to invite economic stagnation until eventually everyone will be equally worse off. Unless we tie our fate to economic discrimination, away from the 'temptations' of egalitarianism (as Odysseus in the face of the sirens was tied to the mast), there will be no hope for an economically just and prosperous society.

Being Korean has allowed me a unique opportunity to witness firsthand the dramatic economic changes in Korea and her neighbours, Japan and China. Born into a largely agrarian country at the time, I was raised in Korea as it transformed into an advanced country in record time. Korea now however faces challenging times with growth stagnation and worsening distribution, and often I wonder about how my country got here and what lies in the future. Trained as an economist in the neoclassical tradition, I have often felt that I was unable to provide a comprehensive explanation for the development trend of Korea and other developing and developed nations. Whatever explanations I found in the literature were rather fragmented, touching on only a narrow aspect of the economy. So, for many years, this led me to think about what a general theory of economic development would look like. I went back to the basics, asking myself what economics really was. And in the process I focused on trying to better understand how development comes about, or does not. This

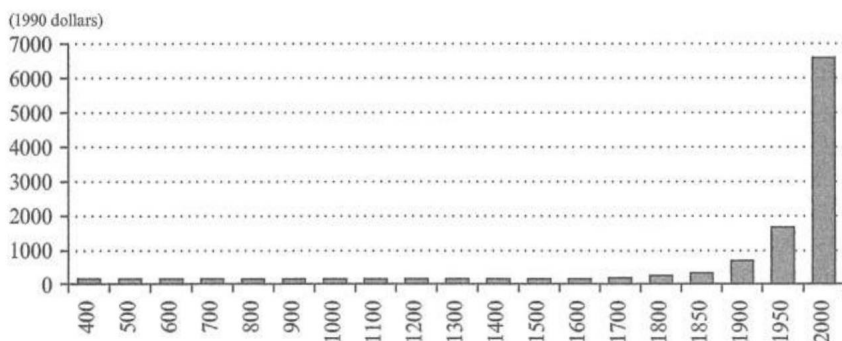
book is the outcome of the turbulent adventure of my personal thinking and agonizing about economic development over the past 20 years or so.

I am grateful and indebted to all the many people, too many to mention, who have helped me on my journey in quest of a General Theory of Economic Development. I would like to extend my special appreciation to Professor Yong Yoon for his help and availability to discuss many of the issues raised in this book. I would also like to thank my wife, Kyungsoo, and family members Eddie, Jade, Annie, Henry and grandchildren. Erica, Ellie, Lucas and Erin, for their encouragement and patience while writing this book.

1. Introduction

1.1 THE ELUSIVE QUEST FOR ECONOMIC DEVELOPMENT

The British economic historian Angus Maddison, Emeritus Professor of Economic Growth and Development at the University of Groningen, the Netherlands, tells us that economic development is a recent phenomenon in the history of mankind. Although human beings have existed for at least 2.5 million years, economic development as we know it today is something that appeared only from around the 1850s (see Figure 1.1). But not all nations have been fortunate in achieving economic development. In fact, only a couple of dozen of the world's 200 or so nations today have actually achieved advanced economy status, while no fewer than a third of the 7 billion living beings on Earth remain locked in the grip of poverty. Moreover, within any country, whether viewed in any single year or across time, the differences between the rich and the poor are visible. Be that as it may, economic development, now perhaps the singular goal of every modern government on Earth, has remained elusive and highly misunderstood and misrepresented. Clearly, there are many mysteries about economic development that need to be solved.



Source: http://econ.berkeley.edu/T_CEH/1998_Draft/World_GDP/Estimating_World_GDP.html.

Figure 1.1 Average world GDP per capita, 400-2000

One can find an enormous number of commentaries that not only provide a wealth of statistical information on the economic performance of nations, but also provide anecdotal and historical accounts of economic change, for better or worse, in various regions of the world.¹ In this chapter, I highlight what I believe to be some important but often misunderstood characteristics of economic development. Doing so should remind the economics profession as well as the intelligent reader of how unrealistic are some of the myths that we have come to harbour over the years. Economic policy has been heavily influenced by the ideal constructs of a kind of nirvana world following various traditional, ideologically oriented development ideas of^ for example, Marxism and socialism, that call for balanced development under a democratic ideology, which have ended in many unfortunately disappointing and unanticipated results. More recently, nearly the whole of the economics profession has come under the convention of unrealistic modelling by the so-called neoclassical growth school, which has adopted a descriptive, accounting analysis approach to economic science. Theory and policy are now detached more than ever, mostly because, on the one hand, theories have lacked reality from the standpoint of policy-makers of developing economies; and on the other hand, there has been an absence of a consensus regarding the theory for actual policy-making and implementation. Economics tends to settle on merely describing what development should be, for example, describing the conditions or states of a nirvana economy, but it essentially remains a normative science that is relatively mute about positive questions on development, namely, explaining the mechanism or questioning how in fact development is attainable.²

In the following, I make several observations that are characterized as myths and realities of economic development, which are later invoked in the arguments that follow in the discourse of the quest to build a General Theory of Economic Development.

1.2 MYTHS AND REALITIES OF ECONOMIC DEVELOPMENT

Myth 1: Economic development is achievable by all nations

Reality At least since the end of World War II, nearly all nations in the world have adopted some kind of development plan. Despite decades of careful planning, however, most have failed to meet their development goals and many have struggled to get even the very basics right. This has led the Peruvian diplomat and former Ambassador to the United

Nations Oswaldo De Rivero to write in his *The Myth of Development* (De Rivero, 2001) that the large majority of Third World countries are in fact only mistakenly called 'developing' countries. Many of these countries in Africa, Asia and Latin America, he argues, are not actually in the process of becoming newly industrializing countries (NICs), but are indeed non-viable national economies (NNEs); that is, feeble infant-states born out of self-determination or historical accident, completely void of economic and scientific progress. The bottom line is that economic development, in whatever its manifestation might be, is a pretty rare phenomenon.

Over the course of the twentieth century, whatever resources or aid poured into underdeveloped nations, corruption and poverty has been the result, where the general populace has failed to embrace the development mentality and spirit.³ The challenge, then, is to find the right incentive mechanisms to place the development mentality and effort in the heart of everyone in the nation. Simply sending resources, technology and funds does not translate into national economic growth and development. The nation's 'can-do' or 'self-help' spirit is a vital ingredient towards business and economic success. In this regard, it is important to ask: 'What incentive structure is required to transform the people's mindset or spirits into the development-friendly mentality? And what institutional and policy reforms are required for this change?*' These are the perennial questions to be answered by any serious theory of economic progress for the 7 billion humans in the world. Country-specific institutional settings, from the informal to formal institutions, have always featured strongly to determine whether the economic environment is friendly or unfriendly for development.

Moreover, it has been observed that leadership always features heavily in development. While economic development has been idiosyncratic, and thus country-specific, economics has been teaching a shopping list of general solutions for growth and development. Leadership has always been the critical factor to make the development idiosyncratic. However, economics does not inform us much about the nature of the successful leadership. Independent of national background, regions or peoples, development (or the lack of it) is intricately linked to the leader or group of leaders. Histories of nations have been made or broken because of leadership visions, decisions and strategies. It would therefore be most interesting to understand what distinguishes 'good' from 'bad' leadership. The relevant question is: 'What makes successful leadership for economic development?'^

Myth 2: Economic development requires balanced growth

Reality Modern social democracies strongly advocate ideas of equality. Often, inequality is seen in a bad light, working against real social and economic progress. Despite the spread of democracy on a global scale in recent decades, economic performance has hardly been impressive. In contrast, the development experiences of some countries, particularly in the latter half of the twentieth century (for example, the Asian Tigers and China) clearly demonstrate that equality might not be an important precondition when it comes to economic growth and development. Much of contemporary literature on growth and development has treated balanced or equal development as a normative goal without careful positive analysis regarding its feasibility. Even when positive analysis is undertaken, the point of debate has been whether resources constraints would allow a balanced strategy or not,⁴ while the issue of whether the nature of growth and development may be compatible with balanced or equal outcome has not been given due consideration.

Contrary to the warnings of many Western democracy advocates, history has shown that economic development and prosperity has indeed been possible under unbalanced growth and, more often than not, development has itself been intricately associated with imbalances in the economy.⁵ Degrees of concentration of economic power to the economic agents usually differ, and rates of growth of firms are also varied, depending on their economic performance; and there are usually differences in their geographical location advantages or positioning, and other imbalances in individual economic agents, corporation, industry, universities, and so on. These are common differences in economic life, as well as a natural feature of development. Most economies experiencing rapid and condensed development of the East Asian type vividly exhibit this phenomenon of unbalanced growth, implying that economic development brings different degrees of improvement for different people depending on their respective economic efforts and achievements. Development is, simply, a very lopsided affair.

Myth 3: Inequality is a major obstacle to economic development

Reality People tend to favour economic equality over inequality. This is evident in the concepts of "balanced growth", 'inclusive growth', and so on. Modern social democracy and so-called 'revised capitalism'⁵ tend to seek economically equal societies through balanced development. These all seem consistent with John Rawls's prediction of the choice of equal distribution in a presumed original position under the veil of ignorance⁶ which, furthermore, seems even more consistent with socialist ideology. But despite their

intention and policy efforts, the world is facing unprecedented polarized stagnation consisting of growth stagnation and income polarization. And this has given rise to an even stronger ideology towards an economically equal society, in opposition to capitalism which is seen as causing inequality.

It is necessary to ask, however, whether we can expect better results from a strengthened redistribution paradigm. The answer this book arrives at, after lengthy enquiry, is a definite 'No'. A closer look shows that economic inequalities arising from differences in market performance are part and parcel of markets, as well as of government developmental policies deliberately favouring better market performers; these are among the most important issues raised in this book⁷ and, as I argue later in greater depth, are a precondition for economic development. Economic inequality is a precondition for non-equal development, while economic equality is antithesis to development and will lead to equal non-development.

Myth 4: Economic policy should avoid ideological biases

Reality Mainstream economists eager to avoid political connotations in their work have often stressed that economic policy prescriptions, whether imported from foreign lands or produced within their borders, should avoid the biases of ideology. Rather, economic policy, it is often said, should be tested and accepted mainly by rigorous analysis and empirical testing. In what has culminated in the neoclassical approach, the Economics Nobel Prize winner Milton Friedman argues that economics can be made into a legitimate science rather than a warring set of ideologies.⁸ But reality presents a different picture and it is not difficult to find examples of cases where the power of ideology has indeed shaped the course of a nation's achievements (and failures), including its economic development experience. Rather than avoid ideology, perhaps, nations will be better off recognizing its enormous influence and taking into account the significance of those institutions that are responsible for the genesis and diffusion of the prevailing ideologies. I feel strongly about this position, and argue that pro-developmental ideologies in the form of self-help, diligence and 'can-do' spirit, and non-linear interactive cooperation,⁹ need to be emphasized if a nation is to have any hope of speeding up its development process. Any legitimate theory of development should be able to endogenize ideology along with the features of the resulting polity, as well as provide clues as to how to transform them if necessary.

Myth 5: Democracy is a precondition of development

Reality Not unrelated to Myth 4 regarding ideology, one of the most defining characteristics of modern history, particularly with the birth of

the modern state in the eighteenth century and the collapse of communism in the late twentieth century, is the idea of democracy. It remains puzzling to many observers, however, that history also discovers that this beautiful idea of democracy does not guarantee economic prosperity and development. On the contrary, in a number of regions in the world, the economic development of non-democratic regimes has shown that significant economic progress is indeed possible without a democracy. Not only the early developed Western countries and Japan in the nineteenth century, but also the four Asian Tigers - namely Taiwan, Singapore, Hong Kong, and South Korea — and recently China in the modern era, have experienced rapid growth and development thanks to direct state intervention under relatively non-democratic regimes, rather than despite them. So, one is left asking: 'What is it about the institutions of democracy (and of non-democratic regimes) that make development possible or impossible? That is, what is the relationship of politics and economics with regards to economic development?' This is a central question that cannot be avoided in any genuine discussion of economic progress.

Another important reality, not unrelated to the democracy issue, is that given the disappointing twentieth-century experiences with only a very few successful development episodes, and the successful nineteenth-century experiences of most of the now developed economies, the visible economic take-off seems to be a feature of the nineteenth century. One may wonder what makes the relatively less democratic nineteenth century witness more visible economic development episodes than the twentieth century, but also why only a handful of non-democratic countries experienced economic development in the twentieth century. Is there any systematic tendency for the popular modern democracies to move towards economic stagnation? A perennial question in development remains: *What types of political democracy or, more generally, what kinds of political regimes, will be development-friendly or -unfriendly?*

Myth 6: Prosperous neighbours are bad for development

Reality The world nowadays seems obsessed by the idea of economic equality, which is seen as originating in one way or another from the Marxian view of the world that sees the capitalist economy as a contradiction, in that the prosperous class exploits the less prosperous class in society. Such 'egalitarian' ideology has been the basis for the popular political regimes of social democracy and their egalitarian economic policy in the post-war period. One of the main messages of this ideology has been that because having a prosperous neighbour is bad for one's own development, there is a need to introduce

socio-economic institutions which will help to reverse-discriminate against the prosperous class.

However, in reality, successful innovators, corporate firms, regions, universities, and so on, act as role models, assuming a position as leaders of the nation, society, economy, region, industry, education sector, and so on. Developing countries and non-developing countries exhibit distinct differences in the numbers and qualities of such role models or 'superstars'. In history, free-riding by latecomers on the success know-how of prosperous role models, by 'standing on their shoulders', has been a signature feature of the development process, implying that having prosperous neighbours is good for development. Of course, it is important that those who will benefit should be willing to take advantage of front-runners. Be that as it may, the process is applicable to individual agents, business corporations and economies, as well as to civilizations in general. However, this implies that in the 'game' of development, the prosperous class tends to be placed in a disadvantageous position compared to the follower, less-prosperous class, due to the free-riding by the latter on the former. Here, in fact, Marx has been placed on his head: it is not the follower class that is exploited by the leader, but the other way round. Hence, success is never everlasting because free-riding will explode and eventually drive leaders into bankruptcy. This can be a threat to the development process, as developmental leaders may eventually be driven out of society and may disappear.

The egalitarian ideology from this perspective can be seen as a barrier to the development process, since it will put any economic leaders into a further disadvantageous position over and above the already disadvantageous naturally free-ridden position. Hence, dispelling the egalitarian ideology could be a prerequisite for sparking development in favour of promoting those members of society who help themselves.

Myth 7: Markets are the elixir of economic development

Reality Harvard Divinity Schoofs Harvey Cox pointed out that it is not difficult to relate how economists view markets to how Christians view God.¹⁰ By this he suggests that mainstream economists tend to have (at times blind) faith in markets as a kind of God and the ultimate cure for the problems of less developed regions. Given that markets are usually imperfect, if not altogether absent, in most underdeveloped regions of the world, it would be difficult for nations to rely on markets alone in bringing about economic development. In contrast, the Economics Nobel laureate Herbert Simon can often be heard stressing the importance of organizations as being even more fundamental to the economy compared to markets.¹¹ That is, it is markets that depend on organizations for their

existence and functionality, rather than the other way round. We will see later that it is better to underscore their common functions for economic development, particularly with respect to their selection and reward of economic winners which act as the engines of economic development, while their modes of operations are fundamentally different.

Myth 8: Markets versus governments: should they compete against each other?

Reality Not unrelated to the Myth 7, much of the confusion about economic development also comes from one of the most defining debates of the twentieth century, that of markets versus governments. An interesting story of the struggle between the two titans can be found in Daniel Yergin and Joseph Stanislaw's (1998) best-selling book, *The Commanding Heights*. Essentially, the authors see modernization in the new era (after World War I) as spearheaded by globalization, free markets and free trade, immigration and exchange of information amongst nations. Broadly speaking, they acknowledge the defeat of the Keynesian influence especially since the 1980s, which has been overtaken by Hayekian ideas that essentially oppose government regulations.¹² Although the debate of markets versus governments has historical significance, it is dangerous to overemphasize its importance. Rather, a broader look at the role and function of markets (as a decentralized coordination system) and organizations (hierarchical structures in the form of firms and governments) in economic development reveals more important insights as to why economic development is possible despite differing opinions on the merits of markets versus governments. Rather than dwelling on which of them can do better for economic development, we will see that it is much more important to recognize what common functions of them are useful for development. In fact, both market and government are indispensable for growth and development.

Myth 9: Negative role of corporations in economic development

Reality Closely related to the previous Myths 7 and 8, one of the most curious traditions in the mainstream growth and development economics has been that the firm is always relegated to an appendix in championing the market or the government. The firm is treated simply as a producer or supplier in a perfect market model, and is dissolved into the factors of the production function such as capital, labour and technology in the neoclassical growth (accounting) model. There is no place in the theory of growth and development for the firm or, more importantly, the modern corporation as a complex whole, to play a developmental role. But reality

gives a radically different picture. The modern corporation, the limited liability joint-stock company, has been the most distinctive feature behind growth and development of the capitalist economy as distinguished from the agrarian economy.

It is hardly a coincidence that the Industrial Revolution began as the combination of legal and economic institutional changes from the 1800s onwards, culminated into the creation of the joint-stock company in 1844.¹³ The agrarian economy had fed all human beings by putting them on the land, and success or failure in life depended on how much land they had and how it was cultivated. They had suffered in the Malthusian trap for a long period of time. However, the capitalist economy took most of them away from the land and put them into the corporations. Now, success or failure in life depends on the fate of corporations which provide jobs; that is, on how prosperous the corporations are, as their employers. Most of the successful economies since the Industrial Revolution turn out to be those with relatively more prosperous corporate sectors, and this feature becomes even more salient in the modern era. Be that as it may, the economic literature has completely ignored the company's role in economic development. It is a challenge to understand why this has been the case, and to place the firm in its rightful place as the locomotive in the process of economic growth and development. Is it not more reasonable to call the capitalist economy the 'corporate economy' rather than the 'market economy' by going one step further beyond the 'organizational economy' named by Simon (1991)?

Myth 10: Industrial policy is unfair practice

Reality Global organizations have declared industrial policy to be unfair practice, while the debate of market versus government has still not been resolved. Nowadays it seems to be the case, without exception, that most governments in the world, regardless of whether they are developed or underdeveloped, have some form of industrial policy, despite the lack of any convincing theory for the policy's success or failure. Furthermore, successful experiences have rarely been observed in modern times, except for a few countries. However, it is even more interesting to find evidence of developed Western economies which actively pursued an industrial policy during their take-off period,¹⁴ but are now eager to preach laissez-faire for latecomers under the name of the Washington Consensus. Moreover, the mainstream market-centric neoclassical approach remains antagonistic to industrial policy, even without paying due attention to what the success or failure factors are.

It is most useful to investigate what the success factors of industrial

policy are, instead of just being involved in the all-or-nothing debate under the dogmatic addiction and adherence of the market-centric mainstream view or pro-government view. We should not be blind to either the merits or the demerits, and rather should try to develop a general understanding of industrial policy, as is done in later discussions.

Myth 11: Economic development is the accumulation of a nation's resources

Reality Mainstream economics teaches us about the production function, and how goods and services are produced by the efficient combination of economic resources. Development economists have for a long time found this simple formulation somewhat unsatisfactory, and can often be found arguing that mere efficient utilization of resources need not result in economic development. Development is a much more highly complex phenomenon. The eminent development economist Irma Adelman, for example, warns us that one cannot single out a unique factor that will guarantee economic development. More specifically, she argues that trade, education, capital, technology, management, and so on (what she terms 'factor X') cannot on their own serve as sufficient conditions for economic growth and development. Furthermore, note that Joseph Schumpeter's footnote on page 64 of his seminal work *The Theory of Economic Development*, first published in 1934, reads, Add successively as many mail coaches as you please, you will never get a railway thereby/¹⁵ This cleverly hints to the complex nature of economic development: the reality of something more complex, larger and beyond just the physical combination of coaches upon which mass transportation is built. Here, it could be argued that not just the mere combination of resources but, rather, the emergence of a new order is what constitutes development.

What some development economists now seem to agree is that the economic institutions can and do play a very important role in creating this new order, and hence development. The task here is to ask: 'What is it about institutions that gives way to a new order, or emergence?' From this complexity perspective, the discussions that follow start by investigating the complex nature of the development process, and move on to the issue of what institutions are good for the emergence of development.

1.3 STRATEGY OF THE BOOK

Let me make a few final points by way of a summary. Our understanding of the economic development process has been enriched by discussions among economists, political scientists, sociologists, policy-makers, and a

host of other professionals and laymen alike, for over 200 years. There is hardly a shortage of theories and opinions, of course, which vary in terms of their scientific qualities and degree of objectivity. Despite this, there are some perennial questions that seem to demand urgent answers at the present stage of our history.

The traditional debate between the roles of markets versus government remains open and has in fact broadened. On the micro, functional and technical levels, the debate is still active regarding industrial policy which, however, seems doomed with no prospect of being settled in the near future in terms of theory and policy. In addition, the theory of the firm is still not fully integrated into the theory of economic development, being pushed aside by the 'importance' of markets and government. Moreover, on the macro, political economy and institutional levels, the debate has now settled on issues about the fundamental question of the *raison d'être* of the capitalist market system, which is seen as a contradiction because it creates economic inequalities, just as Marx argued, and questions have also been raised about the active role of the government in correcting economic inequalities.¹⁶ However, demands for government action stem mainly from a desire to steer society towards economic equality, and not just to correct market failures. Be that as it may, it is interesting to see that the issue of economic inequality under capitalism remains popular despite the failures of the egalitarian system of the planned economies of the Soviet Union, communist China and other socialist bloc nations. There remains a pressing demand for social equality, as well as for the strengthening of welfare programmes, which, however, is also far from being settled. Even more, nowadays, balanced or shared growth as well as equal or fair distribution of income has become a mandate for democracy.

What is important to realize, however - although somewhat obvious - is the fact that economic development is a highly lopsided and uneven affair. Not only does economic development not happen to everyone and in every place, but it does not happen, if it does at all, equally across people, regions, nations and even over time. Also obvious, but too often ignored and sometimes too bitterly opposed, is the fact that the bulk of economic resources and benefits have always gravitated towards economically competent actors, regions and times. Simply put, controversial as it is, economic resources are attracted to better economic performers by definition, moving away from less competent and economically lagging counterparts and contemporaries. Of course, this is not to say that development is a permanent state of affairs. Rather, one is sure to find an ever-changing landscape where successful agents eventually fall and are succeeded by other aspiring upcomers, and history can be seen repeating itself over and over again, as implied by the proposition that development is the

process of free-riding on the Tower of Babel built by the leader-pioneers (Myth 6).

In sum, issues about economic development have now become highly complex, ranging from the traditional theories and technical neoclassical growth models as well as functional issues of developmental players, namely, markets, government and corporations; to ideological and political economy issues of equality, balanced growth, fairness and democracy; and further to issues of leadership and people's mindsets, including 'self-help*', and so on. These are challenging times for the economics profession as a whole, as it faces the demand for clear answers to these highly complex questions. This book does not shy away from giving answers to these perennial and often controversial questions, going beyond the existing paradigm of economic development theory by developing a new General Theory of Economic Development. In fact, if one is to try to answer these perennial questions, it is necessary to rethink the process of economic development per se, as mentioned for example in Myth 11: to widely open the mind so as to swallow anything useful for explaining development, regardless of whether that is under my God or your God or even Buddha.

At this point, it should not surprise me if the reader thinks this book has a 'mission impossible'. But I believe that I have a strategy to handle this challenge, by taking a pragmatic attitude to building a theory that is as simple as possible to explain as many real facts or observations as possible. The simplest of things can also be the most general. With this spirit in mind, this book adopts a multidisciplinary, holistic and inductive approach.

Above all, I ask the reader to bear in mind that the approach adopted in this book is unique, in that I have taken the liberty to borrow more or less freely from ideas from New Institutional Economics, evolutionary theory and complexity economics in trying to better understand the process of economic change and development. I hope that the justification for experimenting with such a heterodox approach when thinking about economic development will become more evident in the following chapters, as I discuss the recent contributions of such approaches to economic thinking about change and development. Some justifications for the heterodox approach are in order.

Firstly, this book adopts the complexity perspective as the basic framework for understanding the nature of development, because it can provide the key insights about the peculiar nature of economic development that are radically different from existing treatments. Chapter 2 looks at the complexity nature of development and deliberates on implications about what needs to be the necessary ingredients of a general theory of economic development.

Secondly, I utilize the New Institutional Economics (NIE) approach broadly to formalize the basic theoretical framework because it can incorporate as many factors as necessary to take into account the complex nature of development. The general theory should easily incorporate the evolutionary as well as complexity perspectives.

Furthermore, the new General Theory of Economic Development should also easily handle political ideology and the impact of politics on the economy, thereby becoming a basis for a positive theory of political economy by providing a choice theory of political ideology and political regime. In addition, above all, the general theory should easily deal with the institutional idiosyncrasy of economic development by incorporating the role of leadership and people's way of thinking as important institutions, as well as all the other institutional environments. This book asks what institutions are necessary for the emergence of economic development. Chapter 3 presents the NIE framework together with a brief critical review of existing theories of economic development.

Thirdly, I adopt a holistic approach throughout the book, because existing theories of economic development have usually been overly reductionist. To be consistent with the holistic approach, the empirical strategy of the book is to investigate the long-term pattern of macroeconomic growth trends rather than the detailed individual sectoral behaviours, because macro behaviours are the emergent pattern of individual sectoral behaviours. The strategy of long-term trend analysis is also consistent with the institutional approach, because institutional change usually takes a relatively long time, sometimes generations, to produce any visible economic impact. Furthermore, consistent with the inductive approach, the general theory in this book is thoroughly embedded in the facts of development. That is, it is 'fact-based' theory. Here, the factual consistency will be strongly emphasized, in which the facts are first, the theory is second, and policies follow. For this purpose, the main chapters for building the new theory start by reviewing economic experiences in development histories on which the general theory will be developed.

Chapters 4 and 5 review the economic development experiences of economies in the West and in Northeast Asia, respectively - what I refer to as extended and condensed development - explaining the signature features of successful development to be incorporated into the body of the fact-based new General Theory of Economic Development. The Northeast Asian development experiences of Japan, Korea and China, as well as the British Industrial Revolution that led Western economic development, are scrutinized closely.

Chapter 6 discusses the important role of the corporate firm in capitalism and economic development. With this chapter, I conclude the

preliminary discussions, allowing Chapter 7 to bring in the new General Theory of Economic Development based on the concept of economic discrimination. Here I develop the 'holy trinity of economic development', consisting of markets, corporations and the government, as important institutions for economic development.

Chapter 8 analyses the role of the politics and political ideology as the supreme rule-setter for development. Chapter 9 concludes the book by countering the myths raised in Chapter 1, thereby ultimately making development economics face up squarely to the realities of economic development.

NOTES

- L See, for example, World Bank (1993), Robert Barro (1997). David Landes (1998),
2. Amartya Sen (2000), William Easterly (2002), Elhanan Helpman (2004), Jeffrey Sachs
3. (2005,2008), and many others.
4. See Sen (2000) for further normative arguments.
See Easterly (2002) for many examples of the 'elusive quest for growth* through foreign aid.
In fact, some of the earliest development economic thinkers, notably Paul Rosenstein-Rodan (1902-1985) and Ragnar Nurk期 (1907-1959) , had emphasized balanced growth as the only viable way to solve the problem of underdevelopment. Others, however; including the eminent development economist Albert O. Hirschman, did not believe that the resources needed for a balanced growth strategy would always be available. Rather, Hirschman maintained that resource limitations that are particularly acute in less developed regions would necessitate prioritizing some areas of industry over others.
5. The early American development economist Clarence E. Ayres (1891-1972) even suggested that by deliberately unbalancing the economy and creating excess capacity in some areas, and thereby intensifying shortages in other areas, the pressures resulting would encourage substantial reactions that would speed up the development process. See Rawls (1971).
6. Of course, inequalities from government intervention not based on economic contribu-
7. tion must be avoided, as this artificially creates sources for rent-seeking.
8. See Friedman (1953).
9. This phrase has a connotation that development is an emergent behaviour of complex economic systems resulting from synergistic interactions among people. To achieve development, it is better that the members of the society as a whole believe in a development-friendly ideology which helps to create synergy among them. In addition to the development-friendly spirit mentioned in the text, the belief in the ideology that having a prosperous neighbour is good for one's own development is very important development, as is discussed under Myth 6.
- ¹DL Cox (1999).
- ¹ See, for example, Simon (1991).
- ² While strongly in favour of this trend, the authors worry that globalization will not last. More specifically, they believe that the current trend will come under threat if inequality in economic growth remains high, and if the Third World is not offered opportunities and incentives to support capitalism. One reason why the authors place so much emphasis on narrowing economic gap is because they believe, following the many interviews they have conducted, that there is no ideologic^ support for capitalism, and the current

system is supported only by the pragmatic fact that it works better than any other (so far). One of the aims of this book is to provide an ideology or philosophy of modern capitalism, as implied by the discussion on Myth 6.

13. Micklethwait and Wooldridge (2003) provide a lively account of the formation and history of the company.
14. Chang (2002).
15. Schumpeter (1974 [1934]).
16. See Mankiw (2013) for the current issues of economic inequalities.

2. Peculiarities of economic development

2.1 COMPLEXITY OF ECONOMIC DEVELOPMENT

2.1.1 Nature of Economic Development

There have been at least two central questions in economics since its birth with the writings of Adam Smith (1723-1790). The first deals with the creation or production of wealth, and the second deals with the efficient allocation of given resources and goods and services that already exist in the economy. The classical economists viewed wealth creation as indistinguishable from increased productivity through what Adam Smith termed the 'division of labour' and the resulting specialization. The allocation problem in this case was solved by the 'invisible hand* of the market. The neoclassical synthesis following Alfred Marshall in the twentieth century turned economics into the queen of the social sciences, elevating it to the level of the natural sciences, and as deserving of the Nobel Prize. The neoclassical synthesis largely emphasized economics as the science of efficient allocation - we may even refer to it as 'allocation economics* - and ever since, the first problem of new wealth creation has been somewhat less emphasized.¹

In contrast to the neoclassical view, Joseph Schumpeter viewed the developmental problem as a dynamic and innovative process involving qualitative change or 'creative destruction', which looks at development beyond its quantitative dimension. The statement, Add successively as many mail coaches as you please, you will never get a railway thereby² warns us about the weakness of viewing economic development as a mere addition of resources, which the neoclassical efficient allocation problem seems to adopt. For example, it looks at how the coach economy should allocate given resources for the production of coaches (and other goods), which have already been produced. Economic development, however, is not merely an allocation problem of given resources to the already predetermined wealth, but rather a problem of the creation of new wealth. In the context of Schumpeter's quote, we could ask two questions of a different order: (1) 'How many coaches should be produced by the coach

economy?'; and (2) 'How does a coach economy evolve into a railway and automobile economy? And even further, into an airplane and spaceship economy?' The first question relates to how coach production may increase from ten to 100 coaches through the reallocation of given resources, thereby increasing production tenfold. Although this involves wealth creation, it remains essentially a linear transformation problem of quantitative change through additional resources. It is merely allocation economics. Neoclassical economics in general, and growth theories specifically, mostly deal with this category of allocation science of creating more of coaches given fixed resources and how to allocate them efficiently. The second issue is more interesting and looks beyond the linear addition of goods and services. Rather, it involves the qualitative complexity of an economy, investigating how the economy is transformed through complex non-linear interaction into a more developed economy in which it is more than the sum of its parts.³ This is the true sense of what economic development is, as hinted at by Schumpeter. While the issue of linear quantitative growth is still important in understanding development, its fundamental nature consists of increasing complexity created in the evolutionary transformation process from the coach, to railway, to automobile, to aeroplane, to spaceship economy.

In this regard, a complexity view of the economy is most useful in developmental economics discourse. The developmental process in particular should be newly interpreted in order to explain the emergent behaviour of complex systems. A complex system is an open system in which the whole is a higher-order system which is more than the simple sum of its constituent individual parts. The rise of this new higher-order system is what we call 'emergence'.⁴ The advancing economy is fundamentally a complex adaptive system in which the higher-order system emerges from a low-order system through the interactions among constituent individual agents. Emergent behaviour involves a non-linear interaction among the parts, and hence is different from linear interaction. That is, while linear interaction produces only a simple sum of its parts ($1 + 1 = 2$), non-linear interaction produces a whole which is greater than simple sum of its parts ($1 + 1 > 2$). Emergence takes place only if the system exhibits non-linear interaction which involves a process of synergy creation among the constituent parts.⁵

The existence of life itself is an example of a typical complex system, a higher-order system, which is created through the interaction of individual biological cells that creates a physical body and mind. This is not different from the butterfly effect, where the flap of a feeble butterfly's wings can create a tornado in some other part of the world many miles away through the amplification effects of the open interaction among many

similar flaps.⁶ The emergent behaviour that a mass of cells or butterfly wings eventually turns into life or a tornado is not at all different from the developmental process in which an economy transforms itself through the open interactions among many different economic agents from coach, to railway, to automobile, to aeroplane and to spaceship economy, or an agrarian economy turns into a modern industrial economy and into a complex higher-order knowledge economy.

Mankind has experienced economic development when it moved from the agrarian to the industrial economy, and now to the cutting-edge complex knowledge economy. The British Industrial Revolution from the late eighteenth century brought about the quantum jump from the agrarian to the industrial economy not only in Britain, but also for the whole of mankind. This is the first incidence of economic development of its kind in human history when the world has witnessed economic progress continuously for roughly 250 years. Although not all nations have been lucky, Korea's economy was transformed from a primitive agrarian to a modern industrial economy only in the last 50 years. The development economics question one may ask is: 'What it is about the progress of mankind that applies to Korea in achieving such great transformation; how does the interactive mechanism in an economy and society transform itself from linearity to non-linearity?' If you again consider the Korean peninsula, a most pressing question is to ask what makes the two Koreas so different, despite the North and South consisting of the same people having shared similar historical and cultural experiences and exposed to almost the same natural environment. Over a period of about 50 years, the South has become an example of successful industrialization, while the North is perhaps the poorest economy in the world.

2.1.2 Mystery of Development

Let me try to put this story of non-linear transformation, emergence or development of a complex economy in a technically broader perspective, by bringing in the insights of other sciences and fields. Phase transition, the transformation of a thermodynamic system from one phase to another, has been an important source of curiosity for physicists and engineers for a long time. The distinguishing characteristic of a phase change is, in particular, the heat capacity change with a small change in a thermodynamic variable such as the temperature. To the layman, it should be somewhat strange that water boils at 100 degrees Celsius and freezes at 0 degrees. That is, by applying heat to an ice cube at a constant rate, there will be two phase transitions when ice turns to liquid water and then to water vapour. Why is the change abrupt? Between 99 degrees and 101 degrees,

the very same water takes on very different properties. In biology, evolution allows for the 'creation' of species. It is a curiosity that the combination of certain genes does not automatically create a new species, however close the DNA structures. A horse and a donkey will produce a mule, which is really not a species because mules cannot reproduce amongst themselves. Then how did ape-man become man? What was the miracle behind the transformation?

In all sciences there are many similar mysteries similar to the examples given above that continue to feed our curiosity. Economic development could be looked at in a similar way. In fact, we could define development as the appearance of an added dimension following the combination of certain basic economic units. For example, as already mentioned, by accumulating living cells in a bucket there is no reason to believe that a living creature, made of these cells but constituting something beyond them, should appear. Put differently, mankind is an amazing development, if not a miracle itself, given that we are in essence only a combination of millions of cells. Surely, there is an added dimension beyond the addition of cells.

Economists have long argued that trade is a non-zero-sum game. Compared to autarky with trade completely absent, the interaction of agents or nations through the simple act of exchanging goods and services according to their comparative advantage renders each agent or nation able to consume more than they would produce on their own without trade. This addition to welfare afforded to both parties through trade was in fact the cornerstone of Adam Smith's theory of the division of labour and the wealth of nations. Interestingly, the solution to the non-cooperative prisoner's dilemma, in which the only concern of each individual player ('prisoner') is maximizing their own pay-off, leaves the players enjoying less than maximum possible reward. In economics jargon, a unique equilibrium for this game is a Pareto-suboptimal solution, which is not rational-choice and leads the players to each choosing to defect, even though each player's individual reward would be greater if they cooperated. Robert Axelrod (1984) showed with the iterated prisoner's dilemma (IPD) in *The Evolution of Cooperation* that interaction between players could lead to better outcomes. That is, some form of cooperation between the players led to each enjoying a higher pay-off compared to the non-cooperative case. This suggests that an improved solution, of even better, added dimensions, can be enjoyed only through 'interaction'.

The point I would like to make is that development as I have defined it cannot take place in autarky, and neither can we speak of development without moving to a higher dimension. Moreover, in the realm of development, non-linear interactions and increasing returns in particular - that

is where $y = f(x, z)$ and $dy/dx + dy/dz$ is strictly less than Δ 少, implying the cross-partial, $dy/dxdz$ is positive - are everywhere important.

Economists have argued that economic growth be differentiated from economic development. The first development economists, such as Simon Kuznets and Arthur Lewis, spoke of structural transformations rather than just the increase of per capita income. Economic development was meant to capture a wide range of aspects of the human condition including poverty eradication, literacy and education, health issues, environmental protection, and so on. Although authors have differed in terms of what they thought was the distinguishing factor over the years, certainly all have added another dimension on top of economic growth when speaking of economic development. It seemed that economists had to explain what made 'development' a deserved and separate field of enquiry, different from just the mere rise in income, often measured by per capita gross domestic product.

Indeed traditional economic development theories rarely contained an added dimension over economic growth. But trying to pin down or categorize exactly what accounts for this difference is as challenging as the physicists* search to explain transition phases or biologists* attempts at explaining the creation of new species. Often the concept of economic development was left as an abstract concept where Newtonian mathematics was best suited. With words, it is easy to slip into discussions that emphasize different aspects when attempting to fill in the 'gaps' created by the 'leap' in development over growth. So far, such overambition has only led to the situation where all kinds of good things have been added to the meaning of 'development', making development economics a normative field much divorced from reality.

After much deliberation, I have come to believe that economic development derives fundamentally from economic externalities which add, positively, an improved dimension over economic growth. Surely, any improvement cannot appear from a vacuum unless of course you are willing to believe in miracles or the creationist story. Rather, I argue that the source of the added dimension is to be found in economic externalities, which as I will explain later, arise from the non-linear interactions of economic agents. In the dynamic development process, there are always members of society - whether individuals, business groups, clans or networks, or even regions and nations, depending on the level of characterization one wishes to choose - who assume the role of 'front-runners' in leading the development process. Such economic champions serve as role models that others might learn from or, at least, be inspired to imitate one way or another as they initiate their own developmental journey. Interestingly, the interactive network of leaders and followers moving

towards the common goal of economic riches and comforts has been a peculiarity of us humans. One cannot underestimate the power of the evolutionary machine to produce change. But, why is it that this so-called development, however elusive it is, has happened only to humans? Perhaps it has to do with the fact that development is intricately associated with consciousness, which only humans amongst the millions of species in the world possess. Why is it that development as we know it today is impossible without humans? What is it about human beings that make economic progress possible or even desirable? Learning from each other through non-linear interactions is the conscious action taken by humans to catch up with front-runners. This is the process of creating and sharing externalities, or free-riding on others⁵ success know-how, becoming the basis of the non-linear transformation and emergence and the development of a complex economy. Externalities are the source of economic development. As we will see later, however, this feature of economic development poses a serious dilemma for economic development: namely, development cannot arise spontaneously.

2.2 COMPLEXITY ECONOMICS AND DEVELOPMENT

The term 'complexity economics*' is somewhat misleading since there is no widely accepted definition for what and how complexity pertains to economic systems. Rather, complexity economics can be viewed as the general application of complexity science to the problems of economics. It is one of the four C*s of complexity, chaos, catastrophe and cybernetics of a new paradigm surfacing in academia.

Complexity economics departs from the traditional neoclassical assumptions in many ways. Most notably, while the old approach saw the economy as a closed system which eventually reaches some equilibrium, the new approach views the economy as an open, complex adaptive system that changes with endogenous evolution. On another note, the mathematical models used in mainstream economics parallel the earlier methods of Newtonian physics, which were solely based on the First Law of Thermodynamics, and on the concept of equilibrium. These ideas, although highly tractable, are very incomplete models of reality. Moreover, they tend to ignore the developments of the Second Law of Thermodynamics, namely increasing entropy, which was clarified by Boltzmann's statistical thermodynamics and later developed in 1949 by Shannon and Weaver. Complexity economics, by embracing the second law of thermodynamics, which emphasizes non-linearities and chaos, and

which draws freely from areas such as behavioural economics, institutional economics, Austrian economics, and evolutionary economics, has begun to take a handle on many more characteristics to describe dynamic processes such as emergence, sensitive dependence on initial conditions, and 'red queen' behaviour. Interestingly, complex systems also usually incorporate a selection mechanism as described by most evolutionary models.

Brian Arthur, Steven Durlauf and David Lane of the Santa Fe Institute, in their introduction to *The Economy as an Evolving Complex System II* (1997), define six features of complex systems that have presented significant trouble for traditional mathematics. These are:

1. Dispersed interaction: what happens in the economy is determined by the interaction of many dispersed, possibly heterogeneous, agents acting in parallel, and the action of any given agent depends upon the anticipated actions of a limited number of other agents and on the aggregate state these agents co-create.
2. No global controller: no global entity controls interactions. Instead, controls are provided by mechanisms of competition and coordination between agents. Economic actions are mediated by legal institutions, assigned roles, and shifting associations. Nor is there a universal competitor or a single agent that can exploit all opportunities in the economy.
3. Cross-cutting hierarchical organization: the economy has many levels of organization and interaction, and regarding units at any given level, their behaviours, actions, strategies, products, and so on, typically serve as 'building blocks' for constructing units at the next-higher level. In other words, the overall organization is more than hierarchical, with many sorts of tangling interactions (associations, channels of communication) across levels.
4. Continual adaptation: behaviours, actions, strategies and products are revised continually as the individual agents accumulate experience; that is, the system constantly adapts.
5. Perpetual novelty niches: these are continually created by new markets, new technologies, new behaviours, new institutions, and what is more, the very act of filling a niche may provide new niches. The result is ongoing, perpetual novelty, not least in the kind of Schumpeter's "creative destruction*."
6. Out-of-equilibrium dynamics: because new niches, new potentials, new possibilities, are continually created, the economy operates far from any optimum or global equilibrium. Improvements are always possible and indeed occur regularly. Here complexity economics seems to reflect closely what economic development is all about.

Table 2.1 illustrates some of the major differences between the complexity perspective and mainstream economics. Eric Beinhocker (2006) in his *Origin of Wealth* proposes five concepts (the first five categories in the table) that distinguish complexity economics from mainstream economics; the last six in the table are from Brian Arthur, as reprinted in David Colander's (2000b) *The Complexity Vision and the Teaching of Economics*.

Table 2.1 Comparison of complexity and mainstream economics

	Complexity economics	Mainstream economics
Dynamics	Open, dynamic, non-linear systems, far from equilibrium	Clewed, static, linear systems in equilibrium
Agents	Modelled individually; use inductive rules of thumb to make decisions; have incomplete information; are subject to errors and biases; learn to adapt over time; heterogeneous agents	Modelled collectively; use complex deductive calculations to make decisions; have complete information; make no errors and have no biases; have no need for learning or adaptation (are already perfect), mostly homogeneous agents
Networks	Explicitly model bilateral interactions between individual agents; networks of relationships change over time	Assume agents only interact indirectly through market mechanisms (e.g. , auctions)
Emergence	No distinction between micro- and macroeconomics; macro patterns are emergent result of micro-level behaviours and interactions	Micro- and macroeconomics remain separate disciplines
Evolution	The evolutionary process of differentiation, selection and amplification provides the system with novelty and is responsible for its growth in order and complexity	No mechanism for endogenously creating novelty, or growth in order and complexity
Technology	Technology fluid, endogenous to the system	Technology as given, or selected on economic basis
Preferences	Formulation of preferences becomes central; individuals not necessarily selfish	Preferences given; individuals selfish

Table 2.1 (continued)

	Complexity economics	Mainstream economics
Institutions	Institutions come to the fore as a main decider of possibilities, order and structure	Institution-free economics
Emphasis	Emphasis on structure, pattern and function (of location, technology, institutions and possibilities)	Emphasis on quantities, prices and equilibrium
Externalities and differences	Externalities and differences become driving force; no nirvana; system constantly unfolding	If only there were no externalities and all had equal abilities, we would reach nirvana
Origins from physical sciences	Based on biology (structure, pattern, self-organization, life-cycle)	Based on nineteenth-century physics (equilibrium, stability, deterministic dynamics)

It is not that economists have not known or appreciated the existence of non-linearities and increasing returns in economic phenomena. Rather, economists have tended to favour diminishing returns and the mathematics of the Newtonian kind which makes things much more tractable for modelling and exposition purposes. But with the advent of the personal computer in the 1980s, economists have no excuse not to meet the challenge of complexity economics, as what were once mathematically intractable models can now easily be handled with cheap computing power, by way of simulation, for economic analysis and research.

Be that as it may, with regards to the development process it is easy to see that complexity economics has many merits over the traditional mainstream approach, most notably in its treatment of non-linear interactions, spontaneous self-organization, emergent patterns and behaviour, and for modelling dynamics in open systems; all important features that are associated with the economic development process itself.

2.3 EVOLUTIONARY FAILURE AS FAILURE OF EMERGENT DEVELOPMENT

2.3.1 Evolutionary Theory as the Key Pillar of Complexity Economics

I have mentioned that complex systems usually incorporate a selection mechanism as described by most general evolutionary models. Richard Dawkins of Oxford University, perhaps the most important popularizer of the idea of evolution in the current generation, holds what is known as a gene-centric view of evolution. To be somewhat technical, a gene is a set of segments of nucleic acid that contains the information necessary to produce a functional RNA product in a controlled manner. In his *The Selfish Gene*, Richard Dawkins (1976) considers the gene as an inheritable unit and the only replicator in living systems. By this he means that only genes transmit their structure largely intact and are potentially immortal in the form of copies, and hence genes and the individuals who embody them are the only unit of selection.

A number of applications of the evolutionary paradigm to economics have used a similar gene-centric view. For example, Beiiihocker (2006) has referred to wealth creation as the product of a three-step formulation — ‘differentiation’, ‘selection’ and ‘amplification’ — which is essentially the formulation of evolution. He is convinced that, ‘The same process that has driven the growing order and complexity of the biosphere has driven the growing order and complexity of the econosphere?’⁷ Interestingly, the firm (or, more specifically, the business plan) is considered as the unit of selection, upon which evolutionary forces determine its ultimate success or failure. The firm in this sense has varying degrees of capacity to adjust and manoeuvre in the changing business environment to better its chances of survival.

The biological metaphor applied to the firm, although appealing at first sight, has some serious defects, as Edith Penrose stated as early as 1952. Her criticism of biological analogies was a direct response to Alchian’s relatively cautious attempt to provide some justification for the use of equilibrium price theory to explain changes in prices and quantities.⁸ She argued that, ‘To interpret innovations as chance mutations not only obscures their significance, but leaves them essentially unexplained, while to treat them directly as purposive attempts of men to do something makes them far more understandable’;⁹ and this in fact is a founding principle of her analysis, as she writes that, ‘All the evidence we have indicates that the growth of a firm is connected with the attempts of a particular group of human beings to do something; nothing is gained and much is lost if this fact is not explicitly recognized’.¹⁰ What exactly the firm does for economic

development is explored further in the new General Theory of Economic Development provided in this book.

After ten solid chapters on the gene as a replicator, Dawkins introduced the concept of the 'meme' as a unit of cultural information that cultural evolution or diffusion propagates from one mind to another, analogously to the way in which a biological gene propagates from one organism to another. Not unlike the gene, which is a unit of genetic information and of biological evolution, the meme is thought to contain cultural information that is subject to the evolutionary process. Dawkins gives as examples tunes, catchphrases, beliefs, clothing fashions, ways of making pots, and the technology of building arches.

Memes, defined as a unit of replication, at least in Dawkins* mind, is propagated by imitation. One person imitates another person's idea, for example. This is easy to conceive of, especially when thinking about fashion and catchphrases. This is all well and good, but it remains questionable whether ideas in general and technical innovation in particular can wait for transmission of memes to translate into hardcore development. Is it plausible to assume that the National Aeronautics and Space Administration (NASA) landed the first people on the moon through the simple evolution of memes? The complex combination and coordination put together under conscious design certainly beats the blind natural selection or imitation that propagates the meme. Although the meme provides us with a convenient way of discussing a piece of thought, or what Dawkins calls 'idea-meme', which is transmitted from person to person, it is essentially blind and has no conscious direction.

All this boils down to the fact that evolutionary forces left alone to rely on random mutations could be more costly than beneficial to humans. Indeed, there is the possibility of evolutionary failure. It is in this sense that I find Beinhocker's 'conscious firms*', which also undergo evolution, more reliable vehicles of economic development than Dawkins⁵ meme. Furthermore, it seems plausible that there is something else that distinguishes the firm specifically, and organizations in general, from the market that gives them importance as drivers of economic development. What exactly this is will again be discussed in light of the new General Theory of Economic Development.

2.3.2 Cultural Evolutionary Failure

Considering Dawkins' meme as the unit of replication in the cultural evolutionary process, it follows that economic development can then be characterized as a typical example of cultural evolution from the complexity perspective. One may not easily escape from the logical conclusion that

economic development is subject to the unintentional and blind replication process by the meme. If this is so, then why bother with economics or economic policy at all, if the evolutionary process will bring about development - or no development — regardless of our intentional efforts. This implication seems to apply equally, not only to complexity economics but also to evolutionary economics, as far as the evolutionary process is adopted as the basis of economic change. While the evolutionary approach has recently been popular in economics, I believe that cultural evolution is fundamentally different from biological evolution, at least in one very important sense: in that the former is usually an intentional process while the latter is a blind and unintended process. Human beings, having a conscious social existence which has evolved from that of unconscious animals, have created a cultural evolutionary mechanism which has turned into an intentional process that is fundamentally different from the unintentional biological evolutionary mechanism.

Is this such a big deal? Yes; it can make a great deal of difference to the understanding of social and economic change. The creation of a meme is not straightforward and may take considerable effort and luck. Meme replicators are all free-riders 'on the shoulders of giants*'. In terms of the economics jargon, they freely enjoy externalities created by the meme creators. If this is the case, the endogenous process of cultural evolution does not easily occur by itself and cultural evolution is destined to be subject to evolutionary failure, with no change whatsoever. This phenomenon could be called a cultural evolutionary failure. That is, evolution in its original sense means a change, which could result in survival or extinction; but here, evolutionary failure means no change, because the differences among the population (meme creators) do not appear and so the mutation itself does not take place. The economy tends to remain stagnant, even if it does not become 'extinct'. In fact, one can imagine as an analogy that the failure of the development of the agrarian economy for a long time in human history is probably due to evolutionary failure; while the development of the capitalist economy can be credited with breaking away from such evolutionary failure. How to prevent such failures is one of the central questions of this book.

Note that with the emergence of a complex economy, economic development is interpreted as an outcome of non-linear interaction among members of the economy which involves a process of learning from each other. Suppose that we, meme replicators, all turn out to be free-riders on the superstars or innovators. What, then, is the implication for economic development? Leaders will find themselves on the receiving end of competition in the survival game, and as others free-ride on them will eventually be driven into bankruptcy and disappear. There will be fewer and fewer

sources of good memes, and the emergent development process of the economy will come to a halt.¹¹

2.4 SYNERGY MARKET FAILURE AS FAILURE OF EMERGENT DEVELOPMENT

2.4.1 Synergy in Non-Linear Interaction as the Source of Emergence in Complex Systems

According to the theory of complex economic systems, development is the process through which the open complex system receives new energy from outside the system by non-linear interaction, and thereby creates a new order. Therefore, regardless of how we define development — creation of a new order, reduction of entropy, improving one's economic and social situation, and so on — the developmental process can only be initiated through the interaction of agents in order to gain something essential for their own betterment. In other words, isolation cannot create a new order. One needs to meet others to learn and to improve oneself. Without meeting others, improvement is impossible. What, then, is it exactly that is exchanged in this open interaction process? It is 'synergy', which is something good, and the creation of which is the fundamental nature of non-linear interaction. Synergy is defined as the combined (cooperative) effects that are produced by two or more particles, elements, parts or organisms; effects that are not otherwise attainable.¹²

The search for new sources of synergy in the market such as better colleagues, love mates, personal friends, business partners, and so on, is an ongoing process that is fundamental to humans. Meeting with others better than oneself allows for the possible enjoyment of synergy, and a better chance of success derived from the synergy. This is the process of development which involves meeting with better others and sharing synergies through learning and imitation. Seen from this angle, synergy is another term for 'positive externality' in the economics jargon, and is not much different from Dawkins' meme in terms of its economic meaning.

2.4.2 Synergy Market Failure

Non-linear interaction, however, can fail to generate emergence if valuable synergy is repeatedly taken up freely by other members in the system, as in the case of free meme replication. Synergy is value created jointly through common interaction, and therefore is also subject to the allocation problem among members. However, synergy is a very elusive

commodity which is quite difficult to identify in terms of quantity and quality; and because the market exchange of it usually involves extremely high transaction costs which can be prohibitive, open market trade is rather difficult.

In other words, synergy is not marketable, because it is technically as well as economically difficult to standardize it as a marketable object. It incurs prohibitively high transaction costs and hence marketization of synergy in a mutually agreeable way is often impossible. Synergy tends therefore to remain a free good. It follows that this synergy market failure is ubiquitous, just like cultural evolutionary failure. Since synergy creation activity is not properly rewarded, synergy-creating superstars and innovators in the complex system tend to be rather rare in the market. Emergence or development of the complex system is rare.

It is interesting to note that the literature on emergence and synergy has already foreseen the possibility of synergy market failure. For example, Corning (2002) argues in the biological context as follows:

I would propose that emergent phenomena be defined as a 'subset', of the vast (and still expanding) universe of cooperative interactions that produce synergistic effects of various kinds, both in nature and in human societies. In this definition, emergence would be confined to those synergistic wholes that are composed of things of 'unlike kind' ... It would also be limited to Qualitative novelties* — i.e., unique synergistic effects that are generated by functional complementarities, or a combination of labor. In this more limited definition, all emergent phenomena produce synergistic effects, but many synergies do not entail emergence. In other words, emergent effects would be associated specifically with contexts in which constituent parts with different properties are modified, re-shaped or transformed by their participation in the whole.¹³

He further adds that, 'Wholes produce unique combined effects, but many of these effects may be co-determined by the context and the interactions between the whole and its environment(s). In fact, many of the "properties" of the whole may arise from such interactions. This is preeminently the case with living systems/¹⁴

According to this view, it is possible that synergy is not realized, so that a system fails to emerge, depending on the specific context or environment. We find such a case in the economic context, in the market environment where the free-riding on the most synergy-producing agents by other members of the economy is prevalent. As far as the emergent behaviour of the complex adaptive system is regarded as depending critically on some synergy, one ends up with the conclusion that the system will be subject to emergence failure if it is left to nature or the spontaneous market order alone. Hence it is necessary to invoke the purposeful non-market organization to 'rescue' the system's fragile emergence. In the following, I provide

some further insights on externalities in search of potential solutions in the economy by looking at real-world examples.

2.5 EXTERNALITIES AND RESCUE OF DEVELOPMENT IN REAL LIFE

2.5.1 Externalities in Real Life

According to some, the golden age of basketball in the modern era was the 1990s. Of course some may disagree, but possibly the greatest, and in any case the highest-paid, player of the sport at the time was Michael Jordan of the Chicago Bulls. Jordan set records in players' salaries by signing annual contracts worth in excess of US\$30 million per season. Do you think he was overpaid? If anything, he was underpaid.

Hausman and Leonard (1997) estimated that Jordan's presence increased ticket revenues at away games throughout the 1991-1992 regular season by \$2.5 million. Local television advertising revenues also rose by \$2.4 million for these games. These increased ticket and local television receipts reflected a positive externality that went to the home team rather than to Jordan's employer, the Chicago Bulls. So, in an ideal situation, the home team should have compensated him for this benefit. This is not the end of the story. Jordan's presence increased national television advertising by \$6.6 million during the regular season and by \$13.9 million during the playoffs. From 1990 to 2001, NBA television ratings in the finals were 27 per cent higher during the years in which he played than in his retirement years. Hence, he helped to boost the earnings of NBA Properties, which licenses NBA merchandise such as clothing and videos, by \$15.1 million. National television and NBA Properties earnings are shared equally by all teams, so most of this increase represents a positive gain for other teams. This means, ideally, that he should have been compensated by all NBA teams. Michael Jordan's positive externalities for the 1991-1992 season alone were estimated at \$40.3 million, which is higher than his salary of \$30 million per season. The actual figures might be controversial, but what is not is his enormous contribution to the development of the sport in the 1990s. It is almost impossible that basketball would be what it is today without Michael Jordan.

2.5.2 Externalities in Economic Analysis

The positive or negative outcomes from economic production and exchange that accrue to others not involved directly in the transaction

are what economists typically refer to as 'externalities'. More precisely, an externality is a cost or benefit arising from some transaction that is not fully captured by the market price. This way of defining externalities presupposes that the buyer and seller are happy with the transaction, but the market fails to see the impact on third parties, whether good or bad. What is also important to note is that market transactions under a free society are assumed to be voluntary and mutually beneficial to the parties involved in the exchange. In this sense, externalities can be seen as an involuntary outcome of voluntary economic activity, which because it is not incorporated fully in the price mechanism tends to result in less than optimum welfare outcomes. Given that the usual treatment of externalities follows only after the study of the 'ideal' markets, although these are quite distant from reality, it is usually impressed upon young and aspiring economists that externalities are the exception rather than the norm. What is more, with specialization and market exchange as the central focus of economics, the neoclassical method has failed to address important questions of organization or, more specifically, the inner workings of anything belonging to the non-market realm. For example, the treatment of consumers and firms is simply reduced to agents of utility and profit maximizers. This, of course, has had an enormous advantage in the construction of the neoclassical price system, which has developed quite happily without the need for a deeper understanding of externalities or the inner workings of other non-market factors such as consumer psychology, as well as other non-market forms of coordination.¹⁵

2.5.3 Externalities are Ubiquitous

Although I decided to introduce the discussion on externalities with a basketball superstar, other not-so-famous people have made and continue to make a positive impact on society without full compensation. Think of our mothers, for example. Compared to Michael Jordan, surely they deserve more than a \$30 million annual paycheck. Their care in raising us to become useful members of society is a benefit to our species which remains far too often unrecognized and undercompensated. Another example is the anonymous inventor such as the person or persons who invented the weighing scale. One can appreciate the enormous benefits this innovation has had on facilitating trade in the market, as well as serving as a symbol of justice, but the inventor has gone unnoticed and unappreciated in the annals of history. Be that as it may, externalities are ubiquitous, as much as they are real. Human beings do not inhabit this world alone, and one's actions affect others in society.

Economists like to view the world as a competitive arena. Producers

struggle against each other to bring the best products to the market, allowing consumers to enjoy various quality products at reasonable prices. And it is the market that is viewed as the ultimate arena where competition takes place. As mentioned, the idea of externalities is somewhat uneasily appreciated by market proponents, who see it as a nuisance that should be dealt with by the government. Examples include taxing the polluter, providing welfare packages to the unemployed, and so on. But competition and externality cannot be separated and in fact they may well be different sides of the same coin. Life itself is about rivalry and externality. People compete with each other, but their 'weapons' in the competition are the fruits of some other person's work or sacrifice; namely, an externality. Take the great Isaac Newton for example. The competitiveness of the sciences during his time produced some of the greatest advances in physics and in mathematics. His theories of gravity were important to generations of physicians and astronomers, yet he was humble enough to write, 'If I have seen further it is by standing on the shoulders of giants.'¹⁶ Exactly how competition and externality mix, to form something that looks quite different and unrelated, is one of the central questions of this book.

2.5.4 Externalities and Organization

Externalities and market failure are nice theories, however poorly understood, to invoke arguments calling for government intervention. The common view is that the presence of negative externalities, unemployment and other economic flaws serves to justify special government policies, which should intervene to 'correct' the misbehaviour of markets. The problem with this view is that when markets fail to solve an economic malaise, governments are not the only ones that can amend things. Rather, individuals and firms can and often do take action. Although the government can help to improve overall social welfare when externalities are involved - say, through direct tax and subsidies - the most efficient means of correcting for externalities is to let the externality creators 'internalize' costs and benefits, for example by introducing social technology of interactive agents like the firm, which often internalize such economic problems better. The choice of solution here is not between the market and the government, but rather between the market and the firm organization.

How can the government help when externalities are involved? The classical example in economics is the story of the beekeeper and the neighbouring flower growers. A beekeeper keeps bees for their honey. The externality associated with this activity is the pollination of surrounding crops by the bees. Hence, the value generated by the pollination may be more important than the value of the harvested honey. In this case, the

government compensates the beekeeper by taxing the flower growers. Of course, one way to 'resolve' this externality is to have the beekeeper own all the flowers as well, which we call 'internalizing'. This way, the benefits and costs accrue to the beekeeper/flower grower.

But, let me give a slightly different account of this story, which features a beekeeper and a flower grower, but changes their economic roles. Assume a country where honey production is somewhat underdeveloped. A visionary leader could, perhaps after some investigation, realize that this is due to poor-quality flowers in the country. Consequently, the leader decides to set up flower growers to cultivate flowers which would be good for honey production. This helps the beekeeper enormously, but the beekeeper is unaware of why production has gone up. That is, they are a beneficiary of an externality. The flower grower, of course, need not be government-run or state-owned indefinitely, and could be privatized later on, or could have been a private firm from the beginning supported by the government. Also in this case, the flower grower can internalize the externality by owning the honey bees, thereby solving the externality problem without government intervention. Private organization is the natural first resort to solving the externality problem by internalizing the beneficiary without government intervention.

Another important aspect of this story is that the growth of the honey industry might not have taken place without the government or the visionary leader. Leaving everything to the market might not have brought the desired results, or at least not as promptly as it did. One can ask, simply, given that the knowledge of the aircraft was already available many years back and culminated in the genius of Leonardo da Vinci, why it took another 400 years for the Wright Brothers to eventually build the aeroplane. Markets simply left to themselves might not be enough for development.

2.5.5 Organizations and Markets

Contrary to the approach and prescriptions of economics textbooks, real-life markets are far from perfect. Both economics Nobel laureates Ronald Coase and Douglass North identify what are called 'transaction costs', or costs in using the market mechanism. If transaction costs are high, then economic activities are better carried out under non-market means. For example, if a group of homeowners would like a recreation facility for common use and find it too expensive to rent one, the residents can band together and make alternative arrangements, such as taking turns in their homes over the course of the week. Organizations meet economic requirements through their command-and-control structures, a substitute for the

markets decentralized price coordination system. What is more, a major strength of the command-and-control system of non-market organizations is to help avoid the transaction costs with internal transactions, and thereby internalize the externalities which are the most important source of development.

Markets alone, however, are not able to initiate the process of economic development due to the fundamental nature of the real-life economy: namely, free-riding or externality together with non-zero transaction costs. Here, the peculiarity of economic development arises: that is, the development process entails the source of its own failure within itself if left simply to the market, and therefore spontaneous evolution or rather development from the market, as usually assumed in the mainstream market-centric models, is rare. An important corollary of this observation is that organizations such as the firm having a different mode of operation from the market may be indispensable to generate the development process.

2.6 RECAPITULATION AND KEY IMPLICATIONS

Are non-linear interactions in the complex system always successful in creating emergence and development? Not always. Engaging with better partners has potentials to help create synergy, but these potentials are only occasionally realized. As I have mentioned many times, development has been a very rare phenomenon. Why is that so? Here is where the issue of evolutionary failure or synergy market failure, just like externality, the prisoner's dilemma or lack of innovators and superstars, comes in. We have here basically a coordination problem of putting people with capital and knowhow in cooperative action, and distributing the rewards fairly to the members of the team. There remains the problem of putting together and sustaining a cooperative team. The contribution of each member to the cooperative team is always different depending on their capability and effort, and cheating, shirking and moral hazard are usually problems of any society. The system, having failed in matching the rewards to member contributions, is destined to face problems of sabotage and will most likely perish.¹⁷ If such problems are successfully managed and controlled, then development can ensue, but otherwise it will fail to emerge.

Interaction involves social institutions, such as markets and organizations. The market is just one type of social institution, while organizations such as families, schools, alumni associations, non-governmental organizations, business corporations, political parties and nations are another type of social institution. As already argued, real-life market transactions usually always entail transaction costs, which implies that the market will

face difficulties in internalizing external effects. In the market, all transactions are carried out through voluntary mutual agreement on the terms of trade, and hence non-zero transaction costs are inevitable. The meme or synergy is an elusive commodity which it is very difficult, technically and economically, to transparently identify in order to trade it in the market. In short, cultural evolutionary failure or synergy market failure is ubiquitous. Markets are destined to fail at initiating the developmental process spontaneously.

Non-market organization, on the other hand, is an alternative allocation mechanism to the market with the potential to rescue the situation. Organizations are different from markets in the nature of their hierarchical command-and-control systems that can avoid the tedious, costly process of voluntary negotiation to achieve mutual agreement, which is the source of non-zero transaction costs in markets. Organizations are alternative innovations to markets in the sense that they can internalize the high transaction cost economic activities, thereby internalizing externalities.¹⁸ Organizations can and do dictate people's actions in terms of their respective tasks, through contracts with individuals. Therefore each individual does not have to enter negotiations concerning how to share the fruits of their joint work on a continuous basis, and this thereby reduces or saves on transaction costs which otherwise would have been prohibitive. When positive externality through synergy creation or meme replication is internalized, the developmental process is rescued by the non-market organization. Without the role of organizations⁵ capacity to internalize externalities, it is difficult for development to be endogenously and spontaneously ignited.

I will discuss this more, but for now note that the modern corporation, the representative form of the private organization, and its massive rise has been contemporary with the experience of economic development since around the eighteenth century or even earlier. The modern corporation, a recent social innovation, is a complex system that has emerged from the generic firm such as the blacksmith business in the agrarian economy and the cottage firms in the early period of the Industrial Revolution, and has become a very efficient synergy or meme internalizer.

Another form of organization is the government, which in contrast to the limited liability company is a public organization. The role of government in economic development is one of the most controversial issues in economics. I argue later that the role of the government is not different from the role of corporations in general. In the market economy, even the corporation that could rescue the synergy- or meme-creating process is inevitably subject to further free-riding by other corporations. Corporate success know-how, which is the source of the meme or synergy, tends to be freely utilized by other firms, and the superstar corporations and

innovators in the economy are undercompensated. This puts the emergent development process at risk. The government has the potential to rescue the development process, as a national internalizer of positive externalities created by members of society, through supporting the superstars and innovators and amplifying them in numbers and in quality.

Markets, as we have argued, are hardly ideal or powerful enough to spontaneously generate the emergent developmental process. Organizations are a necessary part of the developmental landscape in supporting the winning meme or synergy creators and thereby creating superstars and innovators. In a sense, the modern corporation acts as an incubator for synergy creators, but the better or best corporations again tend to be subject to externalities such as the market failure problem discussed above. Here, the government would be the rescuer of last resort, encouraging and protecting the winning meme- or synergy-creating agents in society. I will later discuss in detail the market, corporations and the government as the 'holy trinity*' behind economic development.

In sum, the open complex adaptive system often fails to create a new order because of evolutionary or synergy market failure. If one leaves nature alone – that is, rely only on markets or spontaneous order to create a new order – then the hope of witnessing any positive results is extremely slim. If there is any hope for a complex system to reproduce the developmental process, then there must be non-market organization such as the corporation and government to help correct externality and failure problems.

As a final note, a few key implications of the new perspective on economic development may be listed. Firstly, while biological evolution is usually assumed to be a blind, unintended and directionless process, as exemplified by the analogy of the 'blind watchmaker'^{5,19} the economic development process as a part of cultural evolution is a conscious and intentional process with a specific direction. Intentional and conscious replication of a meme or success know-how involves a free-riding problem which can lead to the failure of the system's emergence. In this case, there may be some supplementary, amplifying mechanism to reinforce the weak power of the market's selection and amplification. Secondly, due to the phenomenon of free-riding 'on the shoulders of giants', the sources of synergy or externality, such as leading civilizations, economies and corporations, cannot maintain their position indefinitely, and this has been proven repeatedly in the long history of human civilization. The catch-up by followers and the demise of leaders has been a fact of life in all aspects of the evolution of human civilization. Thirdly, civilizations, economies or corporations do not easily emerge without prosperous neighbours which they can 'feed off'. It is in this sense that having prosperous neighbours

is good for development. Fourthly, therefore, the key economic development question is how to devise mechanisms to generate a critical mass of prosperous neighbours that will be a source of synergy, and that others will free-ride on. This book will propose the exact nature of the mechanism, namely, 'economic discrimination' as the key to economic development.

NOTES

1. See Beinhocker (2006, Chapter 2) for a similar argument. Buchanan (1964) is an early critic of the resource allocation vision of contemporary economics.
2. Schumpeter (1974 [1934], p. 64).
3. Neoclassical economics merely looks at the coach economy, or the railway or aeroplane economy, applying the same techniques to efficiently allocate resources within the coach, railway or aeroplane systems. The emergence of railways or aeroplanes is not explained but is assumed to be exogenously determined.
4. See Beinhocker (2006), Colander (2000a, 2000b), Coming (1998, 2002), Rosser (2004), and others, for the complexity view of the economy.
5. See Coming (1998,2002) for more discussions on emergence and synergy.
6. This idea has been celebrated as the basis for chaos theory. See Lorenz (1972) and Gleick (1987).
7. Beinhocker (2006, p. 11).
8. Alchian is cited in Penrose (1953, p. 603).
9. Penrose (1952, p. 818).
10. Penrose (1959, p. 2).
11. It can be argued that this implication is arrived by an economic approach to evolution, in contrast to the evolutionary approach to economics.
12. Coming (2002, p. 9).
13. Coming (2002, p. 10).
14. Coming (2002, p. 11).
15. Of course, I acknowledge the developments in the theory of firm by other authors (Ronald Coase, Armen Achian, Harold Demsetz and Oliver Williamson, to name a few) and the economics of family (especially Becker) and other non-market organizations, but their discussions are not systematically integrated into the theory of development.
1. Letter from Isaac Newton to Robert Hooke, 5 February 1676, as transcribed in Jean-Pierre Maury (1992).
1. See Alchian and Demsetz (1977 [1972]) for a similar argument.
1. See Jwa (2002b) for the same argument.
1. Which is the title of a book by Dawkins (1986).
- 1

3. Critique of existing theories and a new beginning

Having established the developmental process as the interactive emergent process of the complex economy, I now turn to discuss whether existing theories or policy prescriptions are useful to handle such developmental issues. This chapter will review briefly the main approaches that are popularly used as prescriptions for economic development, by discussing their merits and weakness. The discussion will serve as a prelude to the search for an alternative framework addressing the complexity of economic development.

3.1 CRITIQUE OF MAINSTREAM ECONOMICS

3.1.1 Current State of Mainstream Neoclassical Economics

Markets are a central theme in neoclassical economics. Microeconomics is the branch of economics that studies how individual economic agents make decisions to allocate scarce resources in various kinds of markets where goods or services are bought and sold. Here the price, usually defined as the exchange ratio between goods that are exchanged for each other, is the ultimate factor that determines how goods and services, as well as scarce resources, are allocated. Some commentators have criticized microeconomics as nothing more than a science of allocation (or, if you like, distribution), without having anything important to say about how goods and services are brought to the market the first place. It is quite remote from development economics, which aims at explaining how new goods and services appear, or seeking new sources of wealth, as argued in the previous chapter.

In the price system, individuals act on the signalling function of prices. For example, if the prices are too high, consumers will not buy, which pushes the price down. If, however, prices are too low, producers will not sell. Prices adjust until an equilibrium price is reached. Two criticisms follow from this. Firstly, individual decisions in this system are atomistic. That is, once the price is discovered in the market, there seems no need for

interactions between economic agents as this would only add unnecessary inefficiencies. Secondly, equilibrium reached by marginal decisions by atomistic agents has been the preferred model for analysis. In fact, economists have developed many complex general equilibrium models to explain and forecast, with varying success (more failure than success, in fact), the many features of the economy. In such models, although based on the assumptions that every agent is an identical price-taker, that there are only homogeneous goods, no barriers to entry, and so on, there is actually no real competition or rivalry. Nor is there any interaction between economic agents to generate synergy, exchange information or, simply, to do business together. This is why microeconomics has no theory of the firm. In the market-price system, firms exist only as a black box that produces goods and services for exchange in the markets. This is why economic development under the neoclassical paradigm is treated narrowly as economic growth.

Of course, there is macroeconomics, which can be thought of as the study of aggregate effects of markets with respect to labour (for example, unemployment issues), money (for example, inflation issues) and international trade and finance (for example, the current and capital accounts), and the exchange rates. Macroeconomics, although having its own set of problems and objectives, is largely based on the perfect-competition market models of the neoclassical flavour. Without going into the details of various controversies in macroeconomics, such as the Keynesian versus Monetarist debate, which would be too much of a digression, I will briefly here summarize the works of growth theorists since Solow (1956).

Economic growth is defined as the increase in the market value of the goods and services produced in the economy. The notion of growth as increased stocks of capital goods (the primary means of production) was codified as the Solow-Swan growth model, which involves a series of equations showing the relationship between labour-time, capital goods, output and investment. In this view, the role of technological change becomes crucial, even more important than the accumulation of capital. Assuming that countries use their resources efficiently and that there are diminishing returns to capital and labour, a country supposedly grows faster relative to other similarly endowed countries simply because it has better access and absorption capacities for new technology. In the Solow-Swan framework, however, technology remains unexplained. It is left exogenous to the model.

Later growth theorists in the 1980s and 1990s, most notably Robert Lucas, Robert Barro and Paul Romer, have contributed much to the literature by looking more closely at human capital - that is, the skills and knowledge that make workers more productive - and ideas of increasing

returns in the analytical framework of economic growth. Technology, or more precisely technological change, together with improvements in knowledge, is emphasized by the endogenous growth theorists. Notwithstanding the merits of the new growth economists, one still cannot avoid the feeling that it is still very much a descriptive and somewhat ad hoc modelling exercise. The growth theories explain the growth process in terms of how much more of the existing commodities can be produced, rather than how the order of the economy may change by producing new commodities. As already discussed, it is only by adopting an evolutionary and complexity view that we get a grip of development as order-transformation.

3.1.2 Critical Weakness of the Mainstream Approach

Mainstream neoclassical economics is not well suited to explaining the developmental process. Firstly, and above all, a key problem lies in its idea of perfect competition markets, which has de facto become the basis for mainstream economic thinking. It is a non-interactive and atomistic competition model, assuming numerous identical agents that are fully informed, working in a frictionless economy. Economic actors are assumed to be so numerous that individual actions cannot affect decisions of others, so that arguably nobody would really care about what others do. Moreover, they do not have to compete or rival each other, and as a result do not have to pay attention to or interact with each other. Any model that does not allow interaction with other constituent agents cannot explain real economic changes in a general or dynamic sense of the developmental emergence process.¹ In short, atomistic markets cannot generate the developmental process.

Secondly, the neoclassical growth models, by taking perfectly competitive equilibrium as the equilibrium nirvana, presume that all identical agents, consumers and firms survive and coexist with one another equally. This model assumes identical players in its initial setting as well as in the final equilibrium. This is most counter-intuitive and counterfactual. The phenomenon of non-linear interaction and synergy can take place only among different agents, that is, 'unlike kinds'.⁵ The agglomeration of identical cells can only produce a mass of cells, and can never create life itself. The difference among agents is critical for a new higher-order system to emerge from interaction.² And of course, differences in individual agents' economic achievements in various dimensions are an obvious fact of life. In this sense, any reasonable model of economic development should be able to incorporate the aspect of economic differences among agents.

Thirdly, the perfect competition model presets the order of an economy, whether it is a coach economy or a railway economy. There is not much

room for new goods and services to enter the model endogenously because the model discovers the allocation equilibrium by assuming the given set of goods and services. The complexity or order of a model economy is preset, so that a new high-order complex economy cannot arise endogenously.

Fourthly, the neoclassical growth model does not treat the firm organization any differently from markets. The firm in the full information setting is not a real firm per se because in order to minimize transaction costs it should be seen to appear as an alternative allocation mechanism to the market in which there is costly information. However, it does not make any difference in the full information setting whether production takes place in the market or through firms, because transaction costs are assumed away. The firms in this setting are not any different from, for example, other consumers designated simply in the role of suppliers, because they as consumers can produce and supply to themselves as well as to others through the instantaneous market transactions, no less efficiently than a firm. Hence the firm is simply a production function which can produce goods and services without incurring any transaction costs, being a magic box producing instantaneously whatever is demanded by consumers.

For this reason, in the neoclassical growth model there are capital, labour, technology, and so on as inputs into the production function, but there is no concept of the firm as social technology to organize production. Neoclassical growth models depict a typical linear interactive technology where the sum of inputs is equal to the whole of the product (for example, usually by assuming a linear production technology like the Cobb-Douglas form). The growth accounting approach to the analysis of economic growth is a typical example in which the weighted sum of the respective contributions of each input, with the residual set as total factor productivity, is equal to the whole. There have been various efforts to overcome this problem by introducing a process of cumulative replication or learning of knowledge, thereby generating increasing returns to scale endogenously (by the likes of Lucas and Romer), but only with limited success due to the constant returns or decreasing returns to scale constraints which afford a stable equilibrium.

The point is that mainstream theory has almost nothing to say about the real firms that organize the complex order-transformation process, which can amplify the order of final products differently from the simple summation of inputs. In particular, the modern corporation is basically a complex system to realize the potential of increasing returns and better products. Therefore, it is imperative to systematically integrate the real-world firm holistically when looking at economic development, which is exactly what this book intends and does in setting up the so-called 'holy trinity of economic development'⁵.

While the modern corporation is a key factor of economic development, economics ever since Adam Smith has to some extent failed to appreciate the role of the corporation in the developmental process; perhaps partly because the *Wealth of Nations*, first published in 1776, appeared before the birth of the modern corporation; and partly because the neoclassical approach assumes away the real-world firm by assuming perfect competition and zero transaction costs. Even Schumpeter does not seem to have fully appreciated the role of the corporation. While he described the developmental process much more realistically as creative destruction, and realized correctly the importance of entrepreneurial spirits as the driving force of economic development, he did not address corporations explicitly but instead took a negative view, even claiming that the growth of the modern corporation would eventually give rise to monopolization and the fall of the capitalistic system. Hence, the role of the corporation in economic development as social technology to organize the complex emergent process has not been fully understood in economics. Rather, its physical technology has been disproportionately overemphasized.

To conclude, neoclassical growth theory amounts to talking about wealth creation without due attention to the creators of wealth or corporations that lead the process of emergence of a new higher-order economy by organizing the production inputs (capital, labour and technology). Hence, the myth that growth and development can be achievable by only combining factors of production, without considering the corporation, has become prevalent.

Fifthly, mainstream neoclassical theory is preoccupied with questions regarding the role of the market versus the government for development, but the debate has been misguided. The question, 'Which is the better promoter for economic growth and development: the market or the government?' has long been extensively discussed, but a convincing answer remains elusive. As will be seen in the following chapters, I have come to think, after much deliberation, that it is more meaningful to ask, 'What common or supplementary functions of markets and government are good for growth and development?*', rather than looking at markets and governments as alternative mechanisms for prosperity.

Market fundamentalists have argued that the market is the prime mechanism for economic growth and development, but seem to have a hard time explaining satisfactorily counter-examples such as the success under strong government leadership and intervention of nations such as Japan during the Meiji Restoration, and in the post-war period Korea during the Park Chung-hee era, China under Deng Xiaoping, and Singapore under Lee Kwan Yu, and so on. At the same time they also fail to provide a convincing explanation for why all those market economies newly established in

the post-war era, including those transformed from the socialist economies in the 1990s, still struggle to provide for their people. If they are not truly market economies, then to what extent, and how, should the economy be marketized in order to develop? More importantly, why have most if not all of those developed market economies struggled to revive economic growth for long periods of time? Often, market-centrists elevate the market to the status of a god that can solve economic problems; but this clearly has been a great disappointment.

However, the pro-government camp also fail in providing any convincing explanations for its position. They have never been able to effectively counteract the criticisms raised by the pro-market camp, who say that the government can never beat the market, especially in picking winners. A closer observation reveals that this debate has been waged under the mainstream neoclassical framework, with market failure as an exceptional case in which the positive government role can only be exceptionally justified. Therefore, there is not much chance for the pro-government camp to theoretically win the debate to begin with. However, once it is understood that the mainstream model is a model of efficient resource allocation under perfect information, rather than a theory of economic development, then the debate can be added to more meaningfully. As I have said, the economic development process, an emergent behaviour of a complex economy, involves free replication (free-riding) of success know-how among economic agents and in itself entails market failure. In this regard, the perfect market model devoid of the possibility of market failure amounts to assuming away the development process itself, to begin with, while the real imperfect market subject to free-riding is destined to fail in starting up the process. I have already argued that the development process, if it takes place in the real imperfect market, requires the role of organizations such as corporations and government to champion a new wealth creation by avoiding transaction costs or information costs and therefore acting as an alternative resource allocation mechanism to the market. Once this point is understood, it soon becomes obvious that the perfect-market model is not the appropriate reference model for development discourse, and the question of market versus government should be changed to the question of what common functions of the government, as well as corporations, supplement the market. The new theory in the later chapters will argue that the development process will always involve the market as well as corporations and the government.

3.2 WASHINGTON CONSENSUS ON THE ECONOMIC DEVELOPMENT POLICIES

Over recent decades, a consensus on the list of economic development policies from the market fundamentalist perspective has appeared. This consensus has become a prescription of the mainstream paradigm of economic development policies known as the 'Washington Consensus⁵', which puts forward the market as the key to economic development. In its broader sense, it has encouraged a more general orientation towards a strongly market-based approach for developing countries.³ The prescriptions encompass policies in such areas as macroeconomic stabilization, economic opening with respect to both trade and investment, and the expansion of market forces within the domestic economy, among other pro-market and/or minimum government intervention policies. In fact, the Washington Consensus is the policy agenda arising out of the mainstream neoclassical growth theory and the free market reform proposals along the line of neoliberalism, with its restrictive macroeconomic reform package for crisis-ridden economies. This consensus has also been called a pro-market laissez-faire approach to economic development.

Be that as it may, the underlying features of the pro-market view are based on property rights protection and economic freedom. Both features unsurprisingly sit comfortably under the Hayekian tradition and Northian New Institutional Economics (North and Weingast, 1989; North, 1990). Since the Industrial Revolution, many countries that have successfully undergone economic development and have become developed economies have indeed produced significant institutional changes in protecting private property rights as well as enhancing economic freedoms for their citizens. Observing this, pro-market scholars champion property rights protection and economic freedom as the 'two wheels of the cart' in driving economic transformation and development. However, this consensus cannot satisfactorily explain how markets can function and provide a useful platform for economic growth without improved private property rights protection and individual freedoms, as has been the case in Japan, Korea and China during the take-off era, as already mentioned. At the same time, this consensus has difficulties in explaining why most of the developing economies adopting the recommended policies have not been able to realize the promised economic development.

On the other hand, with increased liberty and the proliferation of markets, economic inequality in society has become more and more visible. Although it remains debatable whether inequality is a consequence or a cause of economic development - it could well be both - there is no escaping the fact that the laissez-faire utopia of pro-market thinkers, with the

emphasis on individual freedoms, private property rights protection and a more equal society, could possibly be flawed.⁴

In sum, according to the consensus for a pro-market, laissez-faire approach, government industrial policy is not acknowledged properly and often dismissed as inessential, and the role of the corporation is ignored. Rather, the emphasis has been on the market, which is elevated to the level of 'the Buddha' in search of nirvana. However, such an approach, that does not address the role of government and makes little or no reference to corporations, cannot handle the issue of the emergence failure of complex economic systems. Note also that the general criticisms of the mainstream neoclassical paradigm in the previous section are equally applicable to the Washington Consensus.

3.3 THE MISCONCEPTION OF INDUSTRIAL POLICY

On the other hand, there exists an opposite view, which argues that the government should actively intervene 'against' the market, thereby creating new economic outcomes different from the market outcomes dictated by the existing comparative advantage (relative price structure). This can be called a pro-government view, which recommends an active industrial policy for economic development.

Industrial policy, or the infant industry promotion argument, has already been discredited in the neoclassical economics textbooks as well as the mainstream Washington Consensus because, they argue, industrial policy not only has difficulty in delivering its intended results due to the problem of 'picking the winners', but also creates undesirable economic behaviour such as rent-seeking, interest-group politics and monopoly, which ultimately lead to resource misallocation. However, in spite of such counter-arguments, industrial policy has continued to survive in the government policy toolkit in one form or another, regardless of whether an economy is developed or underdeveloped, while outcomes have been somewhat mixed.⁵

In fact, on the theoretical level, the pro-industrial policy paradigm is not without a solid foundation, as shown by Rodrik (2004, 2008, 2011) and Wade (2012). Learning spillovers and coordination failures have been argued as important cases of market failure to justify industrial policy. These are of course very similar to the case of evolutionary failure or synergy market failure in the context of the emergence of the complex economy, which this book is very much concerned with. However, on the policy implementation level, the difficulty faced by the government

in 'picking the winners' seems to be an insurmountable stumbling block for the success of industrial policy. Rodrik (2008, 2011) has persuasively argued that the theoretical basis for industrial policy, as well as the potential problems with it, can equally be applied to any other government policies such as education policy, health policy, social insurance and safety net policy, infrastructure policy and even stabilization policy. In this sense, the remaining issue seems how to implement industrial policy successfully, as in the other areas of government economic policies.

Industrial policy proponents have suggested a few alternatives for implementation. Amsden (1989), for example, has argued based on Korean experiences that the government should intervene, if necessary, 'against' the market outcomes implied by the existing relative comparative advantage or relative price. This position is the typical old-fashioned industrial policy paradigm, simply saying that the market is not a good guide and the government should pick the winners. The World Bank (1993) made a serious effort to compromise the roles of the market and industrial policy, interpreting the modernization experiences of Japan and the East Asian tigers as having adopted a market-confirming industrial policy, and hence leaving the essence of the market intact. It says that the government should not disregard, but rather respect the market, which is another way of supporting the mainstream market fundamentalist paradigm.⁶ However, this argument does not fully appreciate what the market is in fact doing in the developmental context beyond resource allocation, and therefore the meaning of 'market-confirming' is somewhat unclear. Recently, Rodrik (2008, 2011) has suggested an interesting idea, that the government should adopt the policy of 'letting the losers go', in order to get around the thorny issue of how to 'pick the winners'. However, this argument is logically inconsistent because both policies are actually opposite sides of the same coin, and thus if the government can select the losers, then it should also be able to pick the winners, regardless of whether the selection is made *ex post* or *ex ante*.¹ Therefore, Rodrik's proposal falls short of a genuine solution to the problem of industrial policy.

Furthermore, pro-industrial policy proponents have not taken up the task of investigating why most economies that have implemented industrial policy have yielded disappointing results, with only a few exceptions. In this regard, what are the conditions for successful industrial policy, and how should it be implemented? These questions are not only the main concern of the underdeveloped economies today, but are also key questions to be answered by development economics, beyond just proving the theoretical justification for industrial policy, and beyond the usual all-or-nothing, market versus government debates.

The debates on the pros and cons of industrial policy so far have been

misguided, because both sides do not fully understand, or they misunderstand, the real function of markets and governments in economic development. Note here the very important fact that the market is picking and supporting the winners daily, based on their market performances. Seen this way, markets are, by their nature, implementing a kind of industrial policy every day, even though they do not always succeed in bringing forth economic development. We are always living under the market-led industrial policy. Therefore, industrial policy itself should not be something to be alarmed about, nor should it be revered, and lessons from 'market-led industrial policy*' could be a good guide to successful government industrial policy. I will pick up this argument in a later chapter.

3.4 EGALITARIAN ECONOMIC POLICY REGIME UNDER EGALITARIAN DEMOCRACY

There is another policy regime, which can be called the egalitarian economic policy regime, that favours active state involvement in economic management, from a different perspective altogether. Marxian ideology, which sees the capitalist market economy as the source of contradiction creating economic inequality, has been the basis for the social democratic systems in most of the European Union countries. Most of the capitalist market economies including the underdeveloped economies in the post-war era have also adopted a revised capitalism in the midst of the Cold War against the communist bloc. Interestingly, social democracy as well as revised capitalism tend to seek the similar economic goal of an economically equal society, in spite of their different ideological roots; the former being socialism and the latter being capitalism. Nowadays, most developed as well as developing economies have adopted an equality-seeking policy regime in varying degrees to counteract the unequal market outcomes and to realize equal or balanced economic development. The market is taken to be a contradictory mechanism that needs to be corrected by the state's egalitarian policy regime, which of course does not deviate much from Marxian ideology in a broad sense.

Most of the developed economies that have adopted egalitarian democracy such as a welfare state, revised capitalism and social democracy for the last several decades are suffering from stagnant growth and mounting government debt.⁸ These capitalist economies have adopted an egalitarian economic and social policy regime to ameliorate economic inequalities resulting from the market outcomes. Furthermore, many developing economies have also adopted a social democratic political cum egalitarian economic policy regime. The global community, along with the intellectuals

in the post-World War II era, seems to have regarded unequal market outcomes under the capitalist economy as unjustifiable and contradictory. Thus, it is argued that the state should implement egalitarian policies to counteract such undesirable market outcomes. From this perspective, redistributive policies have become a 'must' for most developed economies, featuring high taxes on the 'haves' and generous welfare payments to the 'have-nots' in order to achieve an economically equal society. Furthermore, balanced regional and sectoral policies, along with social development policies, have become the popular policy agenda of the egalitarian democracy.

This trend is not a reflection of thorough economic reasoning but, rather, seems to reflect the prevailing egalitarian ideology, which arguably has turned the one man, one vote electoral democratic system into an egalitarian democracy-seeking economic equality. Under the one man, one vote electoral system, political equality tends to be translated into economic equality of not only economic opportunity, but also economic outcome, such that in a sense liberal democracy has given way to egalitarian democracy. This has been the trend regardless of whether the economies are developed or underdeveloped. But despite this logic, since post-World War II, economic performances have turned out to be disappointing so far.

Why has the high expectation of an economically equal society not been fulfilled? How long do we have to go on along this road? Ironically, this trend seems to have become a feature of the mainstream neoclassical economics framework even though not only equal economic outcome but also equal economic opportunity are radically contradictory to the reality of the market. This probably has happened because the market is interpreted simply as an allocation device, where the perfect-competition model full of equality assumptions such as identical agents, homogenous goods, symmetric information, marginal equality conditions for equilibrium, and so on, has given the wrong impression that reallocation of unequal market outcomes towards the equalities of marginal utility and productivity by egalitarian redistribution policies can help to improve the efficiency of resource allocation. As will be discussed later in this book, if the market is reinterpreted as a developmental mechanism, this trend can be easily seen as unfriendly to economic development, and therefore global communities must reflect on the implications of their egalitarian policy regime if they are to get back on the path of economic development.

3.5 NEW INSTITUTIONAL ECONOMICS PERSPECTIVE: UNSATISFACTORY BUT A NEW HOPE

3.5.1 Importance of Economic Institutions as Transaction Costs Economizers

In the 1950s and 1960s, mainstream neoclassical economics influenced economic discussions in a context that largely left out the importance of institutions. The reason for this, as I have alluded to above, is its stubborn adherence to rather strict assumptions, namely: (1) identical, independent agents; (2) utility and profit maximization; (3) rational choice; (4) complete, symmetric information; (5) fixed preferences; and (6) unique equilibrium outcomes. Essentially trained to think in the mindset of the First Law of Thermodynamics (for example, Newtonian physics) much of mainstream economics in the twentieth century downplays differences of whatever kind in favour of building models where assumptions are characterized by a number of equalities, such as homogenous goods, identical consumers and firms, and information symmetries. Also included in the models are a number of 'democratically consistent' notions such as free entry and exit, perfect information, equal income distribution, and so on. Not only do these models assume away any differences in economic agents, but analyses are often essentially static and are therefore inherently unable to deal properly with the process of economic change and development. It is therefore unsurprising to find that for much of the twentieth century, economics remained silent and ineffective when it came to providing real solutions to tackle the problems of developing nations around the world. To this end, mainstream economics has been described as a science of equilibrium, a science of resources allocation, which takes place in a timeless and institution-free framework.⁹

In recent years, a number of notable institutionalists have worked consistently on creating a more analytical form of institutional economics. Largely influenced by Coase, Williamson and North, and also based on ideas developed by Simon, Arrow, Hayek, Alchian, Demsetz and others, the result is the New Institutional Economics.¹⁰ Essentially microeconomics in perspective, New Institutional Economics is now reckoned as a powerful way of looking at the economy through, not least, introducing new fundamental concepts such as transaction costs, bounded rationality, satisficing, multiple equilibriums, increasing returns, lock-in, path-dependence, and so on, many of which have become commonplace in the modern economists' toolkit.¹¹

A synthesis of the entire literature on how institutions influence human

behaviour is far beyond this chapter's scope, but suffice it to say that one common feature of the New Institutional Economics approach is to emphasize the economizing effect of institutions. By this is meant that institutions are the artificial or man-made structures to help in the handling of transaction costs and market failures (especially free-riding).¹² Following North, institutions are defined as a set of man-made behavioural rules that govern and shape human interactions. Transaction costs and the resulting market failures critically depend on how transparent are the rules of the transactions, and how strictly those rules are enforced. Of course, non-transparent and/or unenforced rules are the source of high transaction costs and market failure, and are a burden on the efficiency of resource allocation.

The emphasis on institutions suggests that there may be merits and demerits of alternative institutional arrangements. Hence, although transparency and enforcement are emphasized, the actual content or nature of institutions conducive to economic development is not yet well understood. Moreover, an important as yet inadequately resolved issue in institutional economics in the context of underdevelopment is why dysfunctional institutions often persist for a long time. Why does the social evolutionary process not consistently select 'fitter' institutions over time? These questions will be briefly elaborated upon below, because they are intimately related to the complexity question of what institutional arrangement will be good for the emergence of the complex economy.

3.5.2 Critique of New Institutional Economics

Many economists today would agree that institutions, history and, increasingly, cultural considerations do matter, and that analyses must go beyond the usual fundamentals of resource allocation, technology and preferences. The New Institutional Economics approach plays a key role in supplementing the institution-free neoclassical theory. New Institutional Economics has succeeded in bringing institutions to the forefront of economic development issues by arguing that institutions are important for growth and development, and thereby including economic institutions in the shopping basket of good tilings for growth and development, as was the case with the Washington Consensus. Institutional reform has become a buzzword for economic reform. In general, the property rights system cum economic freedom prescription has been emphasized, and recently so-called inclusive institutions cum democratic political institutions are proposed to be development-friendly.¹³

However, New Institutional Economics has also brought unwelcomed implications along with many good contributions. Although on the one

hand New Institutional Economics has, for example, succeeded in bringing the private property rights idea to the forefront of the market institution discourse, it seems now that the idea of private property rights has substituted perfect markets as the key for attaining development, being elevated to the level of another Buddha. Not only the Washington Consensus, but all other development policy discussions, now emphasize private property rights as the key reform agenda, sending the message that if you have private property rights cum economic freedom, then everything will be taken care of by the market.

To see the problem with this argument, note that claiming private property rights cum economic freedom is the most important market institution, and if those are intact then the market should also be alright, reduces to the argument that if the market is perfect, everything will be alright. While New Institutional Economics starts with the understanding of imperfect markets, it ends up with a new god: private property rights cum economic freedom. This reduces the problems of development failure to imperfect institutions that fail to put in place ideal private property rights, as well as to the imperfect market resulting from those imperfect private property rights cum economic freedom. However, having in place a good system of private property rights entails a cost. This, however, is often ignored.

Seen from this perspective, the private property rights cum economic freedom argument is insufficient to explain empirically the developmental experiences over the last 200 years or so. In particular, in modern societies most countries institutionalize a private property rights system of one kind or another and do not seriously limit individual economic freedom, with a few exceptions. But, at the same time, there are not many developed and dynamically growing economies. In fact, less than a quarter of approximately 200 independent economies are developed or near-developed, while many are still searching for a solution to basic economic and social problems. One is left asking what the role of the system of private property rights cum economic freedom, or the market for that matter, is, and why they have not delivered on the promises they once stood for.

Perhaps to begin with, a few interesting economic development experiences may be discussed. The first is the world economic development experience (see Figure 1.1 in Chapter 1). Development as we know it today is rare, and did not occur in human history until very recently. It has only occurred since about the nineteenth century, following the Industrial Revolution. However, most of the early developed economies have been experiencing a declining growth trend for the past several decades. The second observation is the Japanese economic development experience since the Meiji Restoration in 1868 (see Figure 5.1 in Chapter 5). Japan

continued its journey to become a developed nation up until the early 1970s, since when it has experienced economic stagnation (see Figure 5.2). The third is the Korean development experience during the last 60 years or so (see Figure 5.3). Similar to Japan in many ways, Korea's growth rate took off in the early 1960s under Park Chung-hee. It continued with high growth of around 9 per cent per annum for a 30-year period up to the late 1980s and since then has continuously declined. Finally, the Chinese development experience since the Deng Xiao Ping regime in 1978 has been phenomenal, after 40 years of long-term stagnation under the socialist regime (see Figure 5.5). The Chinese economy has grown at the remarkable rate of 9 to 10 per cent annually on average for the last 30 years, from the late 1970s under the Deng regime, surpassing Korea's growth record.

From those growth experiences mentioned above, one can conduct an interesting thought experiment. Suppose, as the market-centric view will argue as usual, the improvement of the market function with the enhanced economic freedom and the introduction of the secure private property rights is consistent with the transformations such as the Industrial Revolution of the West, the Japanese take-off since the Meiji era, the Korean take-off during the 1960s to 1970s, and Chinese growth during the last 30 years. Then, the logically following question will be whether or not the same argument can explain the declining growth trend of Japan and Korea in recent years, as well as the stagnating European developed economies. Has Japan hindered the working of its system of private property rights cum economic freedom significantly since the 1970s; and likewise, has Korea done the same since the late 1980s? How about the developed economies? Have they also hindered the function of the market in recent decades? It is not even clear that the periods of Japanese, Korean and Chinese take-off are truly periods when we can definitely say that the market system with private property rights cum economic freedom conspicuously improved upon previous regimes. It is difficult to argue that Japanese post-war development took place concurrently with significant new improvement in such institutions. Nor is it the case that Korea made any conspicuous improvement upon such institutions during Park Chung-hee's regime. How about China? Has the Chinese socialist market economy adopted a full-fledged system of private property rights cum economic freedom, to justify the most remarkable growth records in modern history? It is not the case.¹⁴ Even with the Industrial Revolution, it may be difficult to clearly identify the direct impact of those market institutions on the long-extended process of economic development, while the market-centric consensus takes it for granted that those institutions were so critical for the revolution.¹⁵ It seems that the pro-market laissez-faire approach is unable to explain these

developmental experiences consistently and persuasively. There must be something else beyond such a simple explanation.

During and ever since the Industrial Revolution, the world economy overall has produced significant institutional changes, such as the protection of private property rights and the enhancement of economic freedom, and has simultaneously experienced continued economic growth. Observing this, therefore, the pro-market *laissez-faire* approach turns out to be a persuasive and powerful explanation for longer-term economic change. However, episodes of rapid industrialization of underdeveloped market economies such as in the early take-off years in Japan, Korea and China, and the long-term stagnation of most of the Western developed market economies, seem to demand a more consistent explanation. In addition, the private property rights argument has recently been seriously challenged on both empirical and factual grounds.¹⁶ One can argue that the private property rights system and the provision of economic freedom are the key institutional bases for economic development, but it seems that something else may be necessary, because many underdeveloped economies continue to remain unsuccessful in their quest for development following the mainstream free market prescriptions. Here, I suggest that we should go beyond the usual self-complacent market-centric arguments and look for alternative explanations for the complex aspects of economic development. The questions which still remain to be answered are: 'Where have the market forces been in all those economies for so long? Is it true that government does not have an active role in creating added value to the market outcome? How about the role of corporations?'

3.5.3 Private Property Rights cum Economic Freedom and Economic Inequality

While I fully appreciate the importance of the system of private property rights cum economic freedom for economic development, the specific *modus operandi* of the system is not well spelled out in the New Institutional Economics literature. The point is that the system of private property rights cum economic freedom can help to develop an economy only because it can create economic inequalities, and thereby motivate economic agents to work harder for their own development. One can easily see this point by a thought experiment to compare the two systems with and without the private property rights cum economic freedom, and what will be the economic outcome. It is obvious that the former will be the growing but economically unequal society, while the latter is the opposite, economically equal but without growth. It is important to stress that what in fact the system of private property rights cum economic freedom does

is always to help those who help themselves, by allowing the economically successful agents to create and accumulate more wealth relative to the less successful ones, and thereby encouraging economic power concentration and economic inequalities that motivate others to make sincere catch-up efforts. This is also true for the market as a whole, and this point is fully elaborated and incorporated in the new theory of development in the following chapters.

However, it is hard to find this argument in the New Institutional Economics approach, beyond the tautological message that private property rights cum economic freedom is an important development-friendly institution. North (1990) and others have argued that the system of private property rights cum enhanced economic freedom is the key institution for long-term sustainable economic development. A secure and transparent private property rights system as the rule of the game in the economy greatly helps to reduce transaction costs incurred by the socio-economic system, allowing improvements in economic efficiency and promoting economic development. However, there is silence about what the private property rights cum economic freedom entails: more specifically, development for all, but with economic inequalities. Probably due to this, there are many mutually conflicting and internally inconsistent institutional reform proposals; for example, arguing on the one hand for an institutional reform of private property rights and economic freedom to help create economic inequalities, and on the other hand for an institutional reform to even out incomes and other economic aspects among the people commensurate with a democratic political institution. New Institutional Economics seems to have failed to provide a guiding principle about the essential nature of development-friendly institutions. Beyond just saying that institutions matter for development, New Institutional Economics should provide a choice theory among alternative institutional arrangements for development. That is, it should help answer the question,⁴What alternative institutions are good for development?⁵

Recently, Acemoglu and Robinson (2012) revisited this issue in their book *Why Nations Fail*, in which it is proposed that inclusive institutions are development-friendly, while extractive institutions are not. Inclusive institutions consist of the inclusive political institutions such as plural democracy, as well as the inclusive economic institutions which contain private property rights, rule of law, a market system and the state's support for the market, contracts honoured, free entry, more support for education, fair opportunity and macroeconomic stability. On the other hand, extractive institutions are said to consist of non-democratic, elite-controlled political and economic institutions devoid of the elements of the aforementioned inclusive economic institutions, both extracting

resources from the rest of society. Interestingly it turns out that the list of inclusive institutions is not much different from the list announced under the Washington Consensus. They both also seem to argue that development-friendly institutions should provide more freedom and equal access to economic opportunities for as many people as possible in society. While no one can quarrel with this argument as it is, it presents the danger of implying that certain types of inclusive institutions are good for society, albeit again being silent about what those inclusive institutions will eventually bring us. Going one step further, there is also a danger that they may be implying equal development for all as a goal of inclusive institutions, which in turn implies that egalitarian democracy as well as institutions seeking economic equalities, not only in terms of economic opportunities but also for economic outcomes, can be inclusive institutions. They seem to have ignored the potential conflict between economic equality sought by egalitarian political institutions, and economic inequality created by economic institutions for inclusive growth. Their unconditional and uncritical support for Western plural democracy, which has for a long time been moving towards social democracy and even a kind of populist democracy, and creating many economic woes, is a cause of serious concern. Here, the more relevant question may be, ⁴What democracy is good for economic development?^ And not merely, 'What political institutions are inclusive?'^ The key common problem with such institutional approaches seems to be that they do not mention the economic differences or inequality that arise with the introduction of the private property right system - that is, markets cause and thrive upon economic inequalities - but mainly describe market-friendly institutions such as private property rights, individual freedom, inclusive institutions, and so on, therefore implying that markets are⁴inclusive institutions⁵ bringing about equal development, and hence that egalitarian outcomes are a precondition for growth and development. Many believe that development should be balanced.¹⁷ They therefore tend to be trapped by the egalitarian political ideology. Note that while secure private property rights cum economic freedom is crucial in maintaining incentives for investment and innovations and hence economic development by helping to reduce transaction costs, it can contribute to development only by the effective selection of desirable economic actors and behaviours which, in turn, results in economic inequalities.

3.6 A PRELUDE TO THE FRAMEWORK FOR A NEW DEVELOPMENT THEORY

3.6.1 Search for Enabling Institutions

New Institutional Economics has the capacity to encompass the complexity as well as evolutionary approaches appropriate for dealing with the development of a complex economy. In this section I characterize the system of the complex economy by incorporating the insights of the New Institutional Economics.

First of all, it is important to see how the New Institutional Economics perspective is intimately interrelated to the issue of the emergence of the complex economy. Note that the possibility of emergence failure due to synergy market failure or evolutionary failure stems from the lack of transparent and strictly enforced rules of the game in the economy. That is, the impossibility of providing appropriate reward to the synergy or meme creators due to the impossibility of a perfect intellectual or physical property rights system is an important cause of emergence failure. Emergence failure from the complexity perspective is interpreted as the impossibility of economic ingenuity receiving its full reward.¹⁸ In this sense, Karl Marx is placed on his head, as it is the workers who can be seen to exploit the capitalist entrepreneur and innovator, rather than the other way round.¹⁹ Such a relationship is not difficult to find, especially in the modern-day context, as more often than not it is the business associates that exploit or, if you like, imitate (without full reward) the efforts and success of other business and economic leaders. In other words, the aspect of market failure I find worth emphasizing is the underpayment (and sometimes non-payment) of economic front-runners. Ironically, the fact that positive externality generators can never be fully compensated is exactly the source of positive synergies that benefit society. In this regard, the New Institutional Economics can be an important framework to deal with the issue of re-emergence of the failed emergence, if it can provide an answer to the question of what institutions are good for development. Another way to pose this question in the complexity context is: 'What institutions enable self-emergence?'

To this I note that the institutions in the standard view mainly have a constraining role; for example, constraining the state or other parties from intervening with our property rights. This is the traditional, static view on the economic institution of the existing New Institutional Economics, that institutions are good for economic efficiency because they can reduce the transaction costs by constraining economic behaviour. But what I wish to emphasize is that there are many cases of enabling institutions which

have a somewhat different role. The firm or government may enable many people to do positive things which they could not do by themselves in isolation. Be that as it may, one of the quests of this book is to find enabling institutions for economic emergence.

3.6.2 Analytical Framework for Emergence of Economic Development²⁰

Following the New Institutional Economics, institutions are defined as a set of humanly devised behavioural rules, which determine the rules of the game that govern and shape human interactions. A complex economic system is defined as a collection of economic institutions and is an arena where market participants act under the given rules of the game (institutions), essentially competing or cooperating with one another in pursuit of their individual goals as each strives towards survival and success. One can speak of formal institutions (in the form of laws, rules and regulations, and their enforcement) or informal institutions (in the form of expectations of what other people will do, cultural norms, ideology, and so on). Figure 3.1 summarizes the framework of economic institutions affecting economic agents' behaviours. Starting from the outermost layer is the physical world in which we live; the weather, geography, topography, and so on, to which all physical beings are subject. Political leadership comes next, influencing the choice of the nation's institutional environment. Informal and formal institutions come after that, narrowing down; both are broadly speaking dependent on each other and both are an enormous influence on economic agents' behaviour. Informal institutions usually help to mould the country's formal legal system. That is, ideology and social norms are often translated into formal institutions such as the constitution, law and order, through a political process. However, the formal institutions can be transformed into the informal institutions when the former have been enforced for a long, sustained period and become a habit or cultural tradition. The degree of enforcement of formal institutions refers to how strictly the legal institution, the law and order of the country, is enforced on the members of society. Enforcement is important, since the nominal presence of a legal system or formal institutions per se without strict enforcement does not guarantee any impact on behaviour. In sum, organizations, private and public, and ultimately the individual actors that function within their relevant organizations and through markets, form the core of the system. Put differently, the behaviour of individual economic actors and corporate organizations is constrained by their immediate institutions, including the laws of the country they find themselves under, as well as the ideology, cultural norms, the particular leadership quality of the political leaders affecting the choice of institutional environment, and finally, the

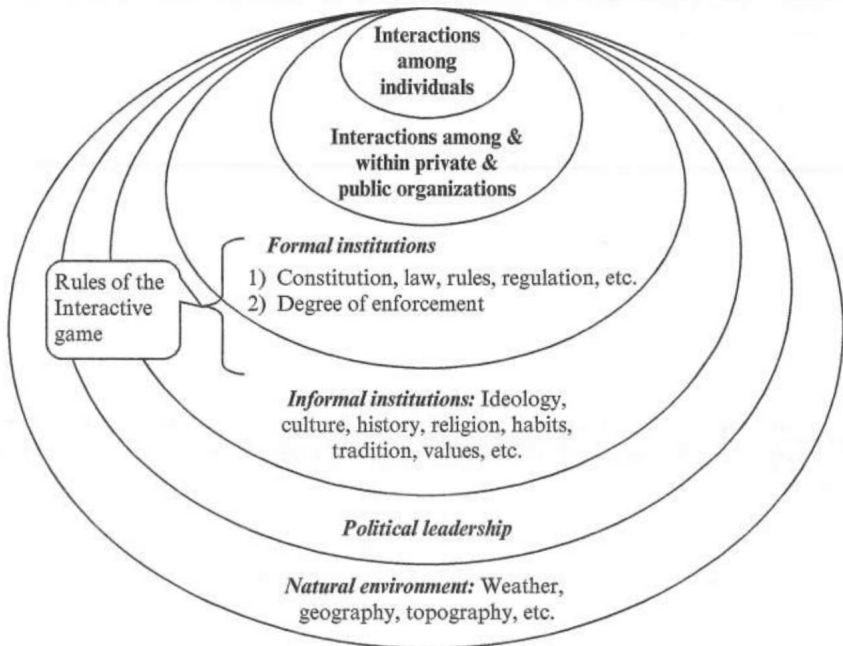


Figure 3.1 Constitution of the complex economy

overall physical environment that encompasses everything. Therefore, the formal and informal institutions as well as the degree of enforcement of existing institutions in the real world help to transform the textbook model of institution-free economy into a realistic one. Of course, on top of all these institutional environments there exists a more important institution: the political leadership as an exogenous determinant of all other institutions. According to this framework, one can see the political institutions, including the ideology and the political leadership, as the most important exogenous determinants of economic institutions and development.

Now, it is possible to discuss more systematically the contribution of the New Institutional Economics perspective to economic analysis, by using the model of the constitution of the complex economy (see Figure 3.1). Firstly, this model can give us an important insight into the different levels of economics.²¹ According to the model, one can identify the mainstream neoclassical institution-free economics and neoclassical growth model as dealing with the interactions of individuals only in a vacuum (that is, institution-free markets in the first layer) disregarding organizations as well as institutions. Here, if one adds the second layer of the role of organization such as the firm, then one has a slightly more

realistic theory of the market economy cum firm organization, where organization becomes an important part of the system but the institutions are not yet introduced. If the third layer is added, then the New Institutional Economics will emerge by taking account of the impact of the formal institutions on the economic behaviour, but disregarding informal institutions. If the fourth and fifth layers are added, New Institutional Economics can be further extended to even become a positive theory of political economy, by considering the political leadership as well as political ideology and institutions as the determinants of economic institutions and behavior. Moreover, economic roles of culture, social values and historical tradition can be analysed at this level, but natural environments are disregarded. Finally, if the sixth layer is added, the economics can be extended to the most general level by incorporating the realm of anthropology and biology, in which case everything in the socio-economic sphere becomes endogenous. Note that if one looks at the different levels of economics from this angle, it becomes very important as well as very easy to distinguish endogenous and exogenous variables, depending on the level of analysis. The rule is that the inner variables become endogenous, while the outer variables become exogenous.

Secondly, this model is also a very useful guide to understanding individual as well as corporate behaviours under complex and different institutional contexts. Economic behaviours of individuals as well as corporations are a reflection of very complex and diverse environments. We are all under the palm of Buddha or our environment, and our thinking and behaviour are difficult to explain without considering the different contexts of institutional environments. If the rules of the game are different, the game will also be different.

Thirdly, this framework implies that economic analysis should reflect a nationality depending on the level of analysis. If the analysis is confined to only the first two layers, like the mainstream neoclassical analysis,²² then economics will become institution-free, and therefore free from national idiosyncrasy or an economy-specific nature. Neoclassical theory is a special theory, and not the general theory that it purports to be. However, if the analysis is extended to third or higher layers, then economic analysis cannot be free from the nationality or locality, because the behaviour of individuals and organizations begins to be idiosyncratic by reflecting the effects of economy-specific national institutions and natural environments.

Most of all, the New Institutional Economics perspective strongly implies that an emergence of economic development will be very much an idiosyncratic, economy-specific event. It can easily be seen that the neoclassical growth model will have a very limited applicability, by

disregarding the nation- or economy-specific nature of economic behaviour of individuals and organizations.

Be that as it may, it is important here to appreciate not only the significance of the layers as illustrated in Figure 3.1, but also that there exist vital interactions between economic actors (individuals and organizations) across and within the layers. What distinguishes my approach from the New Institutional Economics is my emphasis on non-linear interaction as the essential component to understanding complex systems. Moreover, the formation, kinds and pattern of interaction in the economy are largely shaped by the environment, physical as well as cultural; and more directly by the institutions under which economic agents (individuals and organizations) work, which ultimately influence the nature and process of economic change. But what kinds of interaction are associated with economic development? Answering this should allow one to be more specific about the kinds of enabling institutions that policy should support; that is, those institutions that encourage the kinds of interactions that promote and sustain economic development. In the spirit of Clarence E. Ayres, I ask, somewhat boldly, 'Can we discover a *mega theory* of economic development?'²³

One might begin by asking why in the first place anyone would wish to interact with anyone else. A simple answer is to make the claim that we are social animals and as such are destined by genetics to interact with one another. Perhaps a more constructive argument would be that we interact with others because we (and our counterparts) derive some sort of positive gain, what we can call synergy, from interacting with one another. In short, we interact with one another to derive positive synergy as opposed to negative synergy in the pursuit of economic progress, whichever way defined. Yuval Noah Harari (2015) in his *Sapiens* writes that if a monkey and a man were left alone on an island, the monkey would outlive the man; however, if a group of monkeys and men were left on an island, then the group of men would outlive the monkeys.

NOTES

1. This point was raised long ago by Buchanan (1964), arguing for renaming economics as *symbiotics, defined as the study of the association between dissimilar organs, without referring explicitly to complexity; and also recently by Beinhocker (2006).
2. '[E]mergent phenomena [can] be defined as a "suSmit" of the vast (and still expanding) universe of cooperative interactions that produce synergistic effects of various kinds, both in nature and in human societies. In this definition, emergence would be confined to those synergistic wholes that are composed of things of "unlike kind"' (Coming, 2002, p. 10).
3. The term 'Washington Consensus' was coined in 1989 by John Williamson to describe

a set of ten relatively specific economic policy prescriptions that he considered constituted the 'standard' reform package for developing countries by Washington, DC-based institutions such as the International Monetary Fund (IMF), the World Bank and the United States (US) Treasury Department. These are: (a) fiscal policy discipline, with avoidance of large fiscal deficits relative to gross domestic product; (b) redirection of public spending from subsidies ('especially indiscriminate subsidies') toward broad-based provision of key pro-growth, pro-poor services such as primary education, primary health care and infrastructure investment; (c) tax reform, broadening the tax base and adopting moderate marginal tax rates; (d) interest rates that are market-determined and positive (but moderate) in real terms; (e) competitive exchange rates; (f) trade liberalization: liberalization of imports, with particular emphasis on elimination of quantitative restrictions (licensing, and so on); any trade protection to be provided by low and relatively uniform tariffs; (g) liberalization of inward foreign direct investment; (h) privatization of state enterprises; (i) deregulation: abolition of regulations that impede market entry or restrict competition, except for those justified on safety, environmental and consumer protection grounds, and prudential oversight of financial institutions; and (j) legal security for property rights. Wade (2012) has an interesting discussion on how the Washington Consensus was formed and how it came to overtake the structural development economics paradigm in recent decades. The list of Consensus policies has kept extending over the decades to incorporate additional policy items as the need arose, being called a 'shopping list*' for reform or development policies while the fundamental market-centric tenets remain intact. One can also get a glimpse of this view of the growth policies in Barro (1997) and Helpman (2004). They use the term 'economic growth*' instead of 'economic development*', implying the field of structural development economics has now been replaced by the growth accounting models of allocation economics.

4. I will come back to this issue in Chapter 7.
5. While the mainstream Consensus, international rules, and the policy guidelines by the international economic organizations such as the World Bank, IMF and World Trade Organization (WTO), and so on, do not recommend industrial policy, most countries including the US have in fact been implementing industrial policies disguised under various different names. See Wade (2012) and Rodrik (2008) for this point.
6. The market-confirming argument in World Bank (1993) is as follows: the governments of the East Asian economies during their take-off intervened in the market only to the extent that they did not distort the relative price; not deviating much from the market principle so that the basics of the market remained relatively intact. In fact, this argument implies that those governments spent a great deal of energy doing things that were not very much worth doing, and were of course harmless; or simply that they were lucky enough that they did not deviate considerably from what market outcomes would have been. This seems to be a slightly more complicated market fundamentalist view. This view is totally opposite to Amsden (1989).
7. In fact, Rodrik once replied to the author's comments in a seminar held in Seoul in December 2011 by arguing that the policy of *let the losers go* should be interpreted as an *ex post* policy. But then, why not pick the winners *ex post*? How are these two policies essentially different? It seems that his argument cannot escape such a logical fallacy.
8. Egalitarian democracy here is defined as a kind of democracy which emphasizes equality. It stems from the idea of democracy, which emphasizes political liberty and equality, and seeks equal economic outcomes by extending the one man, one vote spirit to the economic arena beyond the political sphere. Liberal democracy is a contrasting concept.
9. Despite the criticisms here, and to be fair, mainstream economics has not remained oblivious to the challenges. The neoclassical approach has made enormous strides in recent years, incorporating monopolistic competition, behaviour under uncertainty, game theory, asymmetric information, increasing-returns models, endogenous growth models, economics of democracy, behavioural economics, and so on. But needless to

- say, these developments have not been enough to find the key to unlock the mysteries of economic development.
10. The term 'New Institutional Economics' was originated by Williamson (1975). New Institutional Economics can be contrasted with another modern branch of institutionalism called European Institutionalism, essentially organized around the efforts of the European Evolutionary Economic Association.
 11. Eggertsson (1990) provides a good survey of the NIE approach. See also Furubotn and Richter (1997) and Drobak and Nye (1997) for more commentary. Harriss et al. (1995) has a summary of recent applications and a number of critical evaluations.
 12. For example, different institutions are available that can help to improve welfare by, say, reducing the possibility of individuals or groups to make and/or suffer from mistakes. Also, there are various institutions that prevent or limit opportunistic behaviour such as laws, courts, bonding contracts, and so on.
 13. Acemoglu and Robinson (2012).
 14. Hayek may argue that even a small change in those institutions significantly impacts upon development, since the more abundant the underutilized possibilities that can be taken advantage of the more the economy has been suppressed under the socialist economy. See Hayek (1984 [1968]). This implies that the existence of underutilized possibilities will have a higher impact on development when new institutions such as private property rights are introduced for the first time.
 15. This argument has been popularized by North and others. See North and Weingast (1989) and North (1990).
 16. Recently, for instance, Angeles (2011) has criticized the private property rights argument, especially on two grounds: one is that the historical facts are not true, which North and Weingast (1989) cited as evidence of improvement upon the private property rights system in post-Glorious Revolution era and argued as the driving force for the Industrial Revolution; and the other is that the empirical evidence to support the private property rights argument is generally weak.
 17. Increasingly, economic policies assume that economic opportunity must also be equal. Note that the market always provides more economic opportunities to high-performers. The government can only guarantee equality before the law.
 18. An analogy is when we might say that we, as children, can never fully repay our parents for their benevolent care and kindness in raising us to become decent human beings.
 19. Karl Marx interprets history as the history of class struggle, whereby the entrepreneurs exploit the workers, thereby necessitating the need for a proletarian revolution as the first step towards dismantling the exploitation brought about by capitalism.
 20. Some of this section is based on Jwa and Yoon (2012).
 21. The insight on the different levels of economic analyses is implied partly from Eggertsson (1990).
 22. Even if the theory of the firm is now much developed and sophisticated, it is still not systematically integrated into the main body of neoclassical theory.
 23. Ayres (1944).

4. Western extended economic development

Having discussed the peculiarities of economic development and what need to be the key elements of the new theory of economic development to handle such peculiarities, I now look at the actual development experiences to investigate the main features of success for the new theory. In doing so, I check closely whether actual experiences are consistent with the new perspective of economic development. After confirming that the new perspective and the major success experiences are consistent, I then formalize in Chapter 7 a new General Theory of Economic Development based on the new perspective by incorporating the key features of successful experiences.

In this chapter, I review the successful ‘extended’ experiences of Western developed economies in general; and in the next chapter, I treat the ‘condensed’ development experiences of mainly Japan, Korea and China. By ‘condensed’ development is meant development in a relatively short period of time (30 to 50 years), as experienced by a few Northeast Asian countries in the modern era. While most literature has treated the economic development experiences of fast-growing Northeast Asian countries as an exception rather than the norm, especially when compared to the gradual Western development experiences, I take a different position and treat the condensed experiences not as outliers, but as a conspicuous representation and confirmation of the extended development experiences. It is important to view both Western and Eastern experiences together through the same lens, to better understand the complex nature of economic development. The absence or presence of certain elements of the development process exposed by the condensed case should not be a reason why those experiences should be disregarded as an outlier, to be only appended to the mainstream; but rather, they should be welcomed and incorporated into the mainstream thought, towards a General Theory of Economic Development.

4.1 INDUSTRIAL REVOLUTION AND WESTERN ECONOMIC DEVELOPMENT

The British Industrial Revolution opened a new era for human civilization by allowing the growth and expansion of the capitalist economy in place of the agrarian economy. How did the Industrial Revolution come about and why did it take place in Britain rather than China, the then most prosperous civilization? What is the fundamental nature of the revolution? How, then, was Britain's successful Industrial Revolution later on replicated by latecomers, and how did the United States (US) catch up with it?

There are numerous explanations of how the Industrial Revolution was triggered. While most have emphasized new inventions and innovations as the key driving force, recently the introduction of market-friendly institutions such as individual property rights and economic freedom have also been mentioned as having provided a good environment for the revolution. In the less developed market conditions, however, arguably the corporate firm has also played a role of paramount importance, not only as the key economic organizer translating inventions and innovative ideas into economic goods and services, but also as the place of origin for the creation of new inventions and innovations themselves. In this regard, I will review the experiences by focusing on the role of three key players - markets, government and corporations - in the Industrial Revolution.

I start with the question of how Britain surpassed China in the Industrial Revolution race. Firstly, it seems that Britain in the late eighteenth to the early nineteenth century experienced demographic change (and other conditions) favourable for economic take-off and development. A large proportion of the population became relatively intelligent and enlightened through the demographic changes in which most of population growth came from the high-income class, while the overall birth rate was lower over a sustained period of time. As such, the highly educated people from the high-income class gradually substituted for the low-income class through inevitable downward class mobility. The original low-income class was therefore eventually reduced. An increasing number of self-enlightened people brought about by this demographic change, in turn, made possible many new initiatives for political and economic reforms including the introduction of political as well as economic freedom and the private property rights system, through a bottom-up process which prepared Britain for the emergence of development. In contrast, China experienced the opposite demographic change, in which the overall population growth remained high, mostly the low-income class, while the high-income class grew more slowly, and over time the country was soon occupied by the relatively less intelligent and enlightened mass. Compared to Britain,

China then had a lower chance of achieving the new reforms required for economic development.¹ Furthermore, Britain was fortunate to have prosperous and predecessor neighbours, Spain and the Netherlands, to learn from their success by free-riding on them. Britain thereafter speared ahead by continuous reproduction of the development-friendly 'cultural gene', as well as with new scientific discoveries through high-quality education, thereby paving the way for the Industrial Revolution.

Secondly, as argued by the studies of New Institutional Economics, the introduction of the market system played a very important role for development. But I think market institutions may have been overly credited in the literature. North and Weingast (1989) argue that the improved private property rights system since the Renaissance from the fourteenth to the seventeenth century, and especially the Glorious Revolution of 1688-1689 paved the way for invigoration of the exchange economy, and led to scientific discoveries and technological innovations and, eventually, the Industrial Revolution.² The know-how of the British Industrial Revolution, together with its economic institutions and policies, spread out to other Western economies and, in particular, was replicated by the US which eventually caught up with Britain. This New Institutional Economics explanation has reinforced the market-centric view and has been integrated into the mainstream *laissez-faire* paradigm. However, the role of non-market organization such as the government and corporations in the context of the Industrial Revolution has not been fully appreciated. Rather, the role of the market has been overplayed somewhat in explanations of the causes of the Industrial Revolution.

Thirdly, following the Mercantilist era in which foreign trade and colonization led by the government-chartered joint-stock companies such as the East India Company, and entering the nineteenth century, Britain began the era of the private limited liability joint-stock company by two things through which the private joint-stock companies were pathfinders to the capitalist economy.³ The Bubble Act of 1720, which required each joint-stock company to possess a charter from Parliament, thereby effectively halting the advent of such companies, while encouraging the popularity of partnership companies for almost a century, was repealed in 1825. Then, the Joint Stock Companies Act of 1844 and the Limited Liability Joint Stock Company Act of 1855 were introduced, helping to establish the corporate firm as a major catalyst for the development of modern capitalism.⁴ In fact, the modern corporation in the form of the limited liability joint-stock company is perhaps one of the most important social technologies in human history, which helped to amplify the emergent process of the Industrial Revolution, an order-transformation from the mail coach agrarian economy to the railway, automobile and

aeroplane capitalist economy. It is hardly a coincidence that the pace of industrialization exploded as the combination of legal and economic institutional changes from the late eighteenth century onwards culminated in the creation of the joint-stock company in 1855, after which the business firm was transformed from the individually or family-owned small company to the large, publicly owned, limited liability joint-stock company, which was rapidly adopted by latecomers in the US, Germany, France and other Western countries, as well as Japan later on.⁵ Arguably, the inventions and technological innovations were transformed extensively into economic value-added commodities mainly by the joint-stock companies, with their capital base increased almost without limits by the limited liability system.

The agrarian economy for many centuries had fed human beings by exploiting the land they lived on, and to a large extent success or failure in life depended on how much land people possessed and how it was cultivated. Often, agrarian society suffered in the Malthusian trap. The capitalist economy removed society's dependence on land by replacing it with corporate firms as the new engines of economic growth. Hence, success or failure in life depends on the fate of corporations which provide jobs and incomes. Most of the successful economies ever since the Industrial Revolution are those with relatively more prosperous corporate sectors, and this important feature has become even more salient in the modern era. The corporate firm has become the driving force of modern capitalist economic development, and the growth of the corporation is now synonymous with overall economic growth. In this regard, the modern capitalist economy may be renamed the "corporate economy" rather than the 'market economy', as will be discussed further in Chapter 6.

It has been the conventional wisdom that science and innovation was the main cause of the Industrial Revolution. However, one must not miss the point, having now acknowledged the role of the corporate firm in the Industrial Revolution, that whatever useful ideas, inventions and innovations may be created, there will not be much economic use for them without the corporation. Hence the corporation can be viewed as coming into existence and being instrumental for economic development by transforming the useful ideas, inventions and innovations made possible by science into economically useful goods and services for the masses. In this regard, one can see that rather than acknowledging the important role of corporations in the transformation of ideas, inventions and innovations into economic goods and services, the economics profession has overemphasized the role of science and technology innovations as the cause of the Industrial Revolution. This position seems to have been strengthened by the proliferation of the market-centric view, which implies that the market

rather than the corporation will take care of transforming ideas and inventions into economic commodities.

Fourthly, the role of government cannot be ignored. While Britain had a role in expanding the extent of the market and the corporations by continuously reinforcing the private property rights system and economic freedom, it also rigorously adopted protective industrial and/or corporate promotion policies.⁶ In the subsequent industrialization process, some of the latecomers successfully replicated British success know-how and so began their development journey. In this sense, the developmental gene was propagated to the other Western economies. It is notable that the active role of government for latecomers such as Germany and Japan became increasingly more visible as they sought to catch up with Britain.

However, according to the mainstream market-centric view, the government's role in the Industrial Revolution has so far not been well recognized as being anything like as conspicuous as the active, systematic developmental role of the modern developmental states. As mentioned by North and Weingast (1989) and other New Institutional Economics studies, the provision of a private property rights system seemed to be a long and passive, unsystematic reactive process in response to various unanticipated events such as the political or revolutionary pressures from the masses, as well as to the needs of successive British monarchies. The provision of the Companies Act in Britain was also a passive effort to transform the de facto corporation into the de jure entity. Therefore, it may be difficult to argue that in the Industrial Revolution there was explicit government intervention to help develop the economy along the same lines as the case of the modern developmental states. However, Chang (2002) has strongly challenged the premise of such laissez-faire arguments espoused by mainstream thinkers, by providing ample historical evidence of British as well as other now-developed Western economies' industrial policies that included import protection, subsidies to favoured industries, and support for research and development and technology, to name a few.⁷ Arguably, it may be more reasonable to say that Britain and its followers, such as the US, Germany, and France, all adopted industrial policies as well as institutional reforms; to keep ahead in the case of Britain, or to catch up for the later cases, in the game of industrialization.

4.2 US CATCHES UP WITH BRITAIN

Let us now turn to look at how the US was able to overtake Britain to becoming a major economic power. I argue that the US was in a unique situation, able to take full advantage as a latecomer by free-riding on what

was then the best model of development. Britain presented to the US important know-how of institutional reforms and industrial policies and, particularly, the limited liability joint-stock company system. The large corporations under the new system were in fact responsible for turning bust into boom even more intensively in the US than in Britain.⁸

It is interesting to note that while Britain created the modern corporation, it was not as enthusiastic about the publicly owned company as the US. At the time, Britain preferred and favoured the traditional family-owned or individually owned companies and partnerships. Even Adam Smith (1910 [1776]) in his *Wealth of Nations* favoured the small owner-managed companies over the large joint-stock companies managed by professionals. An important reason why the British preferred the family firms and personal management, while holding some prejudice against the larger industrial capitalists, may be that as leaders of industrialization the British were tempted to cling on to the earlier forms of capitalism, and felt somewhat less pressure to create corporate giants. Also, as an island country which was the earliest mover in the Industrial Revolution, but still under the influence of an agrarian ideology in terms of social class which respects the scholarly life more than business or technical workers, the British philosophically did not seem to regard companies as an end, but instead treated them as vehicles or the means to a higher end. Simply put, the scholarly civilized existence was preferred to the hard-working industrial corporate life. However, the US closely replicated Britain's institutional setting laid out for the market economy, under a socially open and business-friendly environment formed by a population consisting of migrants from diverse social classes. The new migrants were eager to escape the old agrarian culture of their mother countries, and in the setting of the new land that was radically different and unbound by tradition, it turned out that most were very receptive and supportive of the large-scale, publicly owned, professionally managed companies; which were at times regarded as an end in themselves. This ultimately helped the US to rapidly catch up with and later overtake Britain as an economic power.⁹

In this interpretation, two very important aspects of the economic development process can be identified. Firstly, the US can be considered very fortunate to have had a very prosperous neighbour in Britain (actually its colonizer) to free-ride on. Secondly, different philosophical and cultural as well as natural environments can make a big difference to economic outcomes, even with the same formal institutions. Other second-tier followers such as Germany, France and other Western nations have also employed active industrial policies to catch up, such as promotion of domestic industries with subsidies and import protection, and furthermore have free-ridden on the British model of economic development. This may

imply that the latecomers might have had no choice but to rely on active government intervention to catch up by freely learning from leaders⁵ know-how of success.

4.3 SUMMARY OF WESTERN INDUSTRIALIZATION

I summarize here the key features of Western extended development:

1. Having prosperous neighbours has been a boon rather than a bane for development, since it provides the opportunity for a follower to free-ride on the success know-how of successful nations by 'standing on their shoulders*.
2. Market institutions of a private property rights system and economic freedom, although important for development, have been somewhat overemphasized in the literature. It is necessary to revise the market-centric view of the Industrial Revolution.
3. The corporate firm or joint-stock company system has been very important in amplifying the development process, being the key - yet underappreciated - player behind the Industrial Revolution.
4. Inventions and innovations played an important role in the Industrial Revolution, but this point has been overemphasized, while the role of the corporate firm in transforming ideas, inventions and innovations into economic goods and services, and hence in economic development, has generally been ignored.
5. Governments played an important role not only by actively engaging in the expansion of markets through mercantilism and colonization, but also by providing various development-friendly institutions and adopting industrial and/or corporate promotion policies. The government's contribution to economic development has been much understated in the literature. In the case of the US, the active role of the corporate organization is very visible, overshadowing even the role of government to such an extent that it is easy for market-centric adherents to mistakenly underappreciate not only the role of the government, but also the role of corporations in economic development, and in the latter case, regarding the corporation simply as part of the market.

Ultimately, according to historical evidence, the Industrial Revolution seems to have been aided greatly by all three players: the market, governments and corporations. The market-centric view, then, turns out to be biased in favour of markets; while the pro-government view is also biased

towards the intervention of the government. The fact remains that as far as historical evidence is concerned, all three were and are integral parts of the emergence process of economic development. The more important question beyond the debate between markets and the government is: 'Why are all three institutions necessary, and what functions should each of them play in economic development?' In Chapter 5's discussions on the condensed development experiences I will be more specific about their respective functions.

4.4 MODERN EXPERIENCES OF THE WESTERN DEVELOPED ECONOMIES

The story of Western economies is not always a happy one. I now look at why developed Western economies, the offspring of the Industrial Revolution, are hurting from various economic woes. Western economies are facing serious economic problems such as long-term growth stagnation, worsening income distribution (or economic polarization), serious fiscal distress and financial crisis, to name a few.¹⁰ This is paradoxical, given that they have eagerly sought equal societies in the decades since World War II by adopting balanced growth strategies under so-called revised capitalism and social democracy. They never intended growth stagnation and economic polarization, but despite their good intentions and expectations, the policy regime adopted by these Western countries has failed to deliver what was hoped for.

At the end of World War II, Western capitalism faced its greatest challenge with the global expansion of communism, which vowed to destroy capitalism and replace it with socialism. The communist bloc headed by the Soviet Union aimed at creating a socialist utopia in which both prosperity and complete equality among all citizens would be guaranteed. In order to combat the threat, Western capitalist nations chose to adopt a revised capitalism (mixed economy) or social democracy that emphasized egalitarian principles. The socialist world which experimented with a purely socialist economic regime eventually crumbled in dramatic fashion with the complete breakup of the Soviet communist bloc (North Korea being the sole surviving member). The so-called transitional economies from the socialist regime have mostly adopted social democracy. One can say, stretching over the whole post-war period, to a greater or lesser degree, that Western developed economies have moved towards an egalitarianism-seeking economic equality regime. But surprisingly, however, after two decades of apparent victory in the ideological battle, these same economies today find themselves faced with a renewed and more intensified struggle

over how to address the twin economic problems of growth stagnation and worsening inequality.

Some point to the so-called fundamental contradiction of the capitalist economy, mainly an argument from the Marxian perspective; while others blame the neoliberal policies since the 1980s for the current problems.¹¹ However, if one understands that neoliberalism was only short-lived during the Thatcher-Reagan era in the 1980s, perhaps with some lingering effects, then this episode amounts to nothing more than a storm in a teacup. In this regard, broadly speaking, the common underlying institutions of the post-war political-economy regime of the developed economies can properly be called economic equality-seeking 'egalitarian democracy', which includes revised capitalism and social democracy. Therefore, one can see that the efforts to create a more economically equal society — or in other words, shared and inclusive growth — has in fact created more inequality as well as growth stagnation, against all intentions and expectations, which seems to be the fundamental dilemma now facing most of the developed economies.

Indeed mainstream economists have tried to provide technical explanations for the growth stagnation and worsening income distribution, although without much persuasion. On the one hand, based on the neoclassical growth models, the growth stagnation has been attributed to low growth rates of the population and workforce which have been compounded by the declining fertility rate in most developed countries in recent decades. On the other hand, the worsening income distribution has been attributed to the globalization-driven competitive pressure from the newly industrializing economies, which necessitates industrial restructuring and the ensuing technological innovation which in turn are said to have put low-skilled workers into a relatively more disadvantaged position.¹² These mainstream arguments are somewhat complicated but unconvincing, however, because they remain more or less tautological or descriptive, by not fully addressing the fundamental institutional causes for declining population growth and weakened labour productivity in spite of the increase in the level of education and human capital and technological improvements as well as the institutional barriers to smooth industrial restructuring in the developed economies including labor union.¹³

Be that as it may, mainstream thinkers can often be heard saying that we may have approached a 'new normal' that will continue for some time.¹⁴ This seems to imply that they are not sure of what is happening, or of how to deal with unfolding events. In fact, such a 'confession' by the mainstream is somewhat understandable because they themselves have been the architects or supporters of the status quo political economy regimes, such as revised capitalism and social democracy, in the post-World War

II era. Despite the fact that even development economics often advocates 'balanced growth' as a key goal of economic development, the world is now experiencing even worsened growth stagnation and income polarization compared to when governments began implementing an egalitarian political and economic policy regime. Ironically, the quest for inclusive growth has ended up with exclusive stagnation.

I will argue later in Chapter 8 that the root cause of twin economic problems resides primarily in the egalitarian democracy adopting egalitarian economic policies, and not in the simple functional mistakes of government or markets such as macroeconomic mismanagement and market failures. That is, balanced development ideology has been the leading egalitarian policy paradigm. Redistributive welfare policies and social empowerment policies have been egalitarian, and as such the incentive structure for growth has been mitigated while moral hazard has been encouraged. Simply put, egalitarian policies have been greatly damaging, resulting in financial difficulties for the implementing states. In the midst of low growth and decreasing job creation, and the loss of the developmental self-help spirit affected by the egalitarian institutional structure, the population of middle-income people has dwindled, thereby leading to polarization. Such a scenario seems to be the most plausible reason for the current global economic problems. That is, egalitarian economic and social policies have destroyed incentives for growth and encouraged moral hazard, leading to growth stagnation and low job creation and increasing demand for social welfare, which without the corresponding tax revenues has put enormous pressure on government expenditures and created mounting government debt. Hence the ever-lingering threat of global financial crises with low growth and income polarization. This is what I characterize as economies stuck in an 'egalitarian trap'⁵.

NOTES

1. The pattern of the different demographic changes of two countries is from Clark (2007). However, one may wonder about the reason for the different demographic changes. One explanation may be that the enclosure movement in Britain which started in the fourteenth century, continued to the sixteenth and resumed from the late eighteenth to the early nineteenth century, impoverished the low-income class and effectively reduced their numbers as a result of their poverty-driven low fertility rate. On the other hand, China as the relatively rich, rice farming nation, had a rather conducive environment in which the low-income class could sustain their livelihoods with a relatively high fertility rate. Note that for both countries, the high-income class had a relatively low fertility rate, probably because the number of children has a negative income elasticity, being a Giffen good, while the quality of children is a superior good. See Becker (1981) for more on this proposition.
2. Even if the counter-argument by Angeles (2011) is interesting and seems convincing, as

discussed in the previous chapter; nevertheless the argument for the importance of the private property rights system can survive on its own logical merits.

3. By most accounts the Dutch were in fact the pioneers even before Britain; for example, establishing the Dutch East India Company (VOC) as early as 1602, which became a model for all chartered firms at the time (see Micklethwait and Wooldridge, 2003, p. 20.)
4. Under the Bubble Act until the early nineteenth century the partnership company was the most popular form of company. See Micklethwait and Wooldridge (2003).
5. See Micklethwait and Wooldridge (2003) for more details of the company history. The importance of the modern corporation will be elaborated in the next chapter.
6. 'Industrial policy*' seems to be a misnomer for the corporate promotion policy, because industrial promotion can only be realized through corporate promotion, as will be discussed in Chapter 7.
7. Chang (2002) has presented detailed information on industrial, trade and technology (ITT) policies adopted during the Industrial Revolution by the now developed Western economies and has successfully challenged the mainstream view of development, including the Washington Consensus. However; while he shows clearly the potential usefulness of ITT for catch-up, he seems to have missed the important question of what those success factors are exactly, and how to go about resolving the issue of 'picking the winners*'. In other words, he does not explain why some economies are successful but others are not, when the same ITT policies are adopted. It seems to be just tautology to claim that good ITT is good for development.
8. For example, Chandler (1977) rightly evaluates the importance of the role of the corporations in US development by characterizing their role as the 'visible hand'
9. See Micklethwait and Wooldridge (2003) for the related point.
10. See El-Erian (2010), Cowen (2011), Summers (2011) 6 and Gordon (2011) 6.
11. For example, Stiglitz (2012) and Piketty (2014).
12. Acemoglu and Autor (2011).
13. See Chapter 8, section 8.4.1 for further discussion on these issues.
14. Mohamed A. El-Erian and Bill Gross have been credited with developing the post-global financial crisis concept of the 'new normal*' in the late 2000s.

5. Eastern condensed economic development

After having made specific reference in the previous chapter to the British Industrial Revolution and the development experiences of Western developed economies as examples of extended successful economic development, in this chapter I address the experiences of the Northeast Asian economies of Japan, Korea and China, which I refer to as condensed economic development. The Northeast Asian economies are examples of condensed development in the sense that development took place in a very short period of time (30 to 50 years). This is critical because, amongst other things, witnessing most vividly the whole emergent behaviour of economic development allows us to better identify the direct impact of development policies. In contrast, it is relatively difficult to identify policy impacts in the case where economic development takes place over a very long period of time, such as 200 to 500 years as experienced by Western economies, especially because economic change comes too slowly and gradually to be easily identifiable as a direct impact of specific economic policies. Hence the condensed case, because it is more discernable, may provide better information on the developmental process than the extended case, and perhaps the most typical and dramatic cases of condensed development in recent history are the Northeast Asian economies of Japan, Korea and China, which are the focus of this chapter.¹

In this regard, it is most useful to integrate these Northeast Asian development experiences into the General Theory of Economic Development, rather than to treat them as exceptions or outliers. This approach will help to fill the missing gaps, if any, in the mainstream paradigm based on Western experiences and led by the British Industrial Revolution which, in fact, lasted longer than a couple of hundred years. I exploit both Western and Northeast Asian experiences which are mutually supplementary in providing a complete picture of economic development processes. In doing so, I focus primarily on the issue of the role of government versus market, broadening the issue, consistently with the new perspective of economic development, by recognizing that in the market economy there exists a very important organizational entity, the private corporation, that works in tandem with the public organization of government and markets for

economic development. This review, though somewhat brief, focuses on highlighting the roles played by the 'holy trinity' of economic development, namely, markets, corporations and government.

5.1 JAPANESE ECONOMIC DEVELOPMENT

5.1.1 Japanese Industrialization Policies in the Modern Era

Since the Meiji Restoration in 1868, Japan had free-riden on Western civilization led by Britain by freely replicating the success know-how of the British Industrial Revolution and, even more, the German development know-how such as industrial policy to catch up with Britain. Japan did not initially possess market cum private property rights and economic freedom like that of the British. However, to catch up with the West, Japan as a latecomer emphasized industrial policy more than the laissez-faire market approach.

Post-Meiji Japan introduced market system institutions within a relatively short period, while at the same time it made very active and intentional efforts to promote economic development under the slogan, 'Wealthy Country, Strong Army'. Meiji Japan also discarded the social caste system which had disdained commercial as well as industrial activities (1869), officially permitted freedom of choice for crops (1871) and for selling farmland (1872), and abolished restrictions on domestic travel (1868). These reforms allowed more economic freedom not only for farmers, but also for the general public, so that farmers thereafter could move to the urban sector and engage in industry and commerce. Japan's constitution was promulgated (1889), declaring the inviolability of private property rights, and the modern civil law modelled on Western laws was promptly enacted (1898), thereby establishing the property rights system. The joint-stock company system was introduced in 1899, mainly following the German model.²

While introducing institutions for the proper functioning of the market economy, the Meiji government also sought rapid industrialization by actively engaging in industrial policy. It is well documented that the government played a leading role in Japan swiftly catching up with the Western industrial strength, by actively participating in all areas of the national economy such as building infrastructure, establishing public companies where necessary in the targeted industries, and directing bank credit as well as various government special favours towards private companies, to name a few.

Having tried to invite private investment into targeted industries in the

early 1870s without much success, because indigenous holders of private capital were very reluctant to engage in new businesses, the Meiji government had no choice but to directly invest into those industries, ranging from capital-intensive military-strategic industry to labour-intensive consumer goods industry. This policy proved successful in initiating the new industries and also in encouraging some private capital to invest in those industries. But towards the end of the 1870s, the policy turned out to be unsustainable, for various reasons, including the financial difficulties faced by the government and the low profitability of the government-run companies. From 1880 onwards, the Meiji government adopted a new policy to sell off government plants and factories, except for a few important defence industries, at very low prices to a few private companies such as Mitsui, Mitsubishi, Sumitomo and Yasuda. The result of this policy change was to open the door for the formation of the *zaibatsu*, and also to set the tone for successful Japanese industrial policy thereafter. While those companies were criticized for receiving government favoritism, in hindsight they turned out to have been the most trusted, and deemed the best choice, surviving long-term in the market. It will be argued later that help to grow market-tested private companies is one of the most salient features of successful industrial policy. This is not yet well understood in the literature.³

In fact, these companies went on to become the most important big four *zaibatsu* with strong government back-up; and in the Showa period a group of new *zaibatsu* were created with strong back-up from the military, which was then highly influential. These *zaibatsu* led Japanese economic development in the pre-war period,⁴ and also played a key role in the post-war rehabilitation period, though under the slightly different name of *keiretsu*.

Furthermore, the Japanese government also actively promoted private sector activities by helping corporations to start up and grow, with many entrepreneurs coming from the samurai class. It is interesting to see that in this process, many samurai reinvented themselves as business entrepreneurs, thinking and behaving like 'samurai with abacuses' embodying the ideology of enterprise for national economic strength and prosperity, not for individual profit, which in fact stems from the samurai *bushido*.⁵ Thereby Japan succeeded in transforming the samurai *bushido* into modern entrepreneurship, and in effectively utilizing the corporations for industrialization. In fact, this entrepreneurial attitude has become a tradition which still prevails to some extent, even in the twenty-first century.

However, the epitome of Japanese industrial policy occurred in the post-war reconstruction period, when its aim was to promote heavy and chemical industry as the leading sector for economic development. While the heavy industrialization began in the post-World War I period, it gained

momentum in the period right after World War II. An important post-war industrial policy for the reconstruction of the post-war economy was the 'priority production system' supporting and promoting key industries, especially the steel industry and its energy source, the coal mining industry, through the highest investment priority (Johnson, 1982). In general, Japanese industrial policy in this period known as an industrial targeting policy, providing special favours to the targeted industries, which set the standard for similar policies by the latecomers thereafter.⁶

5.1.2 New Interpretation of Japanese Industrial Development Policy

Having briefly given an account of Japanese industrial policy in the period after the Meiji Restoration, I would, however, like to go beyond the conventional interpretation. As mentioned earlier, it is customary to interpret industrial policy as the convention for the government to intervene against or to disregard market forces by 'picking the winners'. However, I argue that Japanese industrial policy experience differs from such an interpretation. First of all, it was very discriminatory in helping those corporations which became economically successful and concentrating resources to them, which as I will argue later, is exactly the same as the market does - that is, helping those who help themselves — and therefore it can be reinterpreted that Japanese industrial policy reinforced market-led industrial policy rather than disregarding market outcomes.

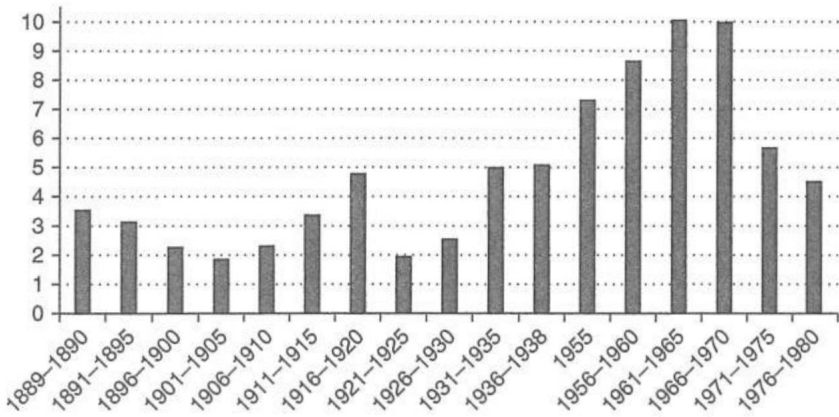
As noted above, Meiji industrial policy since 1880 did follow market signals closely, by picking market winners as those companies receiving support rather than picking winners against the market outcome. That is, the policy mainly allowed companies that had already proven to be successful in the market to enter new or priority industries. Meiji industrial policy had in fact nurtured the market-tested, better-performing *zaibatsu* not only by selling off government companies to the best companies during the 1870s, but also by the introduction of the general trading company system⁷ in 1876 and the modern company system in 1899, as well as various government support measures. In addition, it was also the case that the post-war industrial policy, the 'priority production system'⁵ had no choice but to support individual companies in the priority sectors by utilizing the existing *zaibatsu*. In particular, Japan revived the traditional, pre-war industrial policy of supporting the *zaibatsu* to meet the huge military demands of the American forces during the Korean War, as observed by Morishima (1982), though in a very critical manner.⁸ Furthermore, the export promotion policy was also discriminatory by providing more financial and other incentives to better-performing export companies. Here, the general trading company system played a key role in systematically helping

better export-performing *zaibatsu*. In this sense, Japanese industrial policy was in fact a discriminatory corporate promotion policy for the priority sectors and industries.

Furthermore, such discrimination can be found not only in industrial policy but also in many other policies in the history of Japanese development. In fact Japan, ever since the Meiji Restoration, adopted highly discriminatory, unbalanced development policies to enlarge the so-called 'three differences' - between city and village, between industry and agriculture, and between brain and manual work — by favouring the former over the latter, respectively, as interpreted by Morishima (1982); and thereby stimulated leading sectors, regions and nucleus corporations rather than treating them uniformly and equally.⁹ Here may be added one more dimension of such difference enlargement policies, namely, favouring the market-tested, better-performing corporations and thereby enlarging the difference between good and mediocre corporations, in addition to Morishima's three differences. Overall, this strategy was the leading policy stance for the Japanese post-Meiji industrialization drive. The Japanese catch-up process can be regarded as successfully expedited through economic concentration to the leading sectors, regions, industries, companies and even individuals, such as former samurai and government officials, through such discriminatory, unbalanced development policies including corporate promotion policies.

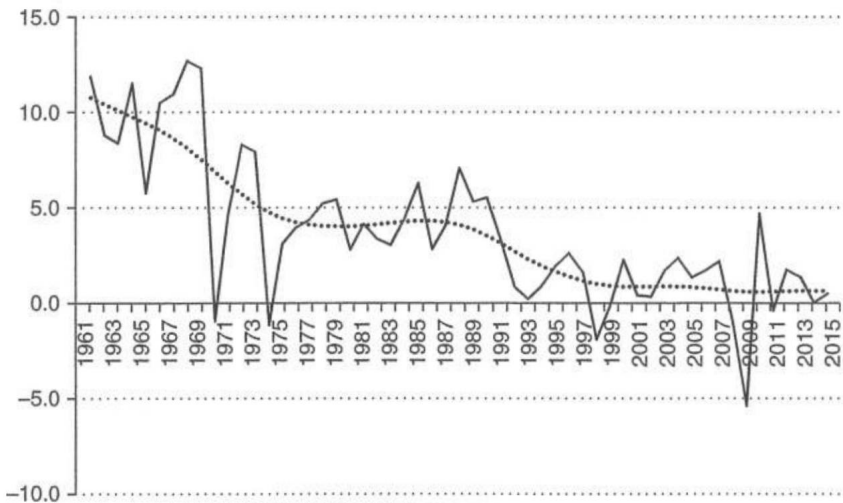
5.1.3 Japan in an 'Egalitarian Trap' since the 1970s

After becoming the second-largest world economic power in 1968, Japan entered into an era of social democracy when it began to adopt an anti-discriminatory, egalitarian policy regime which worked against market outcomes. Examples of such Japanese egalitarian policies are the adoption of a balanced social and regional development strategy since the 1970s, following Tanaka's 'reform proposal of Japanese islands' arguing for the elimination of inequalities between the main cities and other regions, among income classes and among corporations, the adoption of 'emotional' lifetime employment system¹⁰ as the Japanese model in the mid-1970s, the adoption of the egalitarian, failing European style of welfare system, and the introduction of a 'flexible' education system disfavours hard-working, better-performing students,¹¹ to name a few. It is interesting to observe that the Japanese economy has stagnated and even declined during this new era of an egalitarian economic policy regime, rather than being rejuvenated as intended by those policies. The bottom line is that anti-discriminatory, egalitarian economic policy resulted in economic stagnation (see Figures 5.1 and 5.2).



Source: Minami (1986, p. 43).

Figure 5.1 Japanese long-term GDP growth, 1889-1980



Note: The trend (dotted) is calculated using HP filter ($X = 100$). The per capita income is measured in a constant local currency unit (base year = 2000).

Source: World Bank (2016).

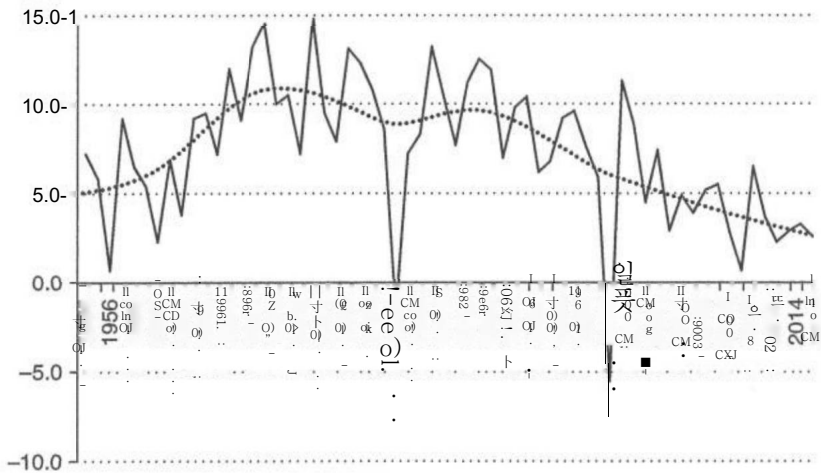
Figure 5.2 Japanese per capita income growth trend, 1961-2015

5.1.4 Implications of Japanese Experiences

From the above observations on Japanese developmental experience, one can draw some interesting insights for economic development policy which could supplement the British model. Firstly, the Japanese model of development is a model of government-led development. Important market as well as social institutions were intentionally introduced by the government. The government dominated the market in industrial development. Secondly, however, successful industrial policy in general should not disregard or simply confirm the market's outcome but, rather, reinforce market outcomes. That is, successful industrial policy should in fact be a kind of corporate promotion policy targeting successful corporations, which will of course in turn help the industry, the sector and even the whole economy to grow. Thirdly, concerning the role of corporations, one could further argue that the Japanese model is, in fact, a model of corporation-led development. Japanese economic growth was led by the growth of internationally competitive companies, the *zaibatsu* in the pre-war era and the *keiretsu* in the post-war era, which are a weaker form of the *zaibatsu* re-emerging after the dissolution of *zaibatsu* in the name of economic democracy under the MacArthur reform. It is interesting to see that many of the large companies established in the Meiji era not only played a key role in the catch-up period, but also persist as leaders in the economy now, albeit under different names. In this regard, the *zaibatsu* should not be considered monsters to be dissolved, as argued by some mainstream as well as Marxian economists such as Morishima (1982).¹² The growth of the *zaibatsu* and accompanying economic (power) concentration and economic development turn out to be the two different sides of the same coin of the emergent behaviour of economic development. One may wonder whether the Japanese condensed growth miracle would ever have been possible without the growth of *zaibatsu* and the resulting economic concentration. Fourthly, anti-discriminatory, egalitarian economic policies as well as industrial policies tend to have done more harm than good to the nation's economic dynamism, as observed during the last 30 years.

5.2 KOREAN ECONOMIC DEVELOPMENT

Korea has been very fortunate to have had the United States (US) and Japan as close neighbours which, for the last 60 years, Korea has been able to free-ride on by replicating their success know-how. Korea, just like Japan, has made conscious efforts to industrialize the economy, which it has successfully done in a very short period of time. Modern institutions



Note: The trend (dotted) is calculated using HP filter 分, = 100). The per capita income is measured in a constant local currency unit (base year = 2000).

Source: World Bank (2016).

Figure 5.3 Korea's long-term per capita income growth trend, 1955-2015

of an exchange economy were continuously introduced; some by Japan during the Japanese rule, but most came after the foundation of the Republic of Korea in 1948, and thereafter under Park Chung-hee in the 1960s and 1970s. Even amid the appeal of popular socialism at that time, the first republic led by President Lee Syngman, who was educated in the US, chose a capitalist market system which became the basis for economic prosperity for South Korea by paving the road for a market economy. This event contrasts strongly with the North Korean path towards socialism and totalitarianism. From the early 1960s, Korea grew rapidly for 30 years, mostly under the influence of the President Park Chung-hee. However, since the late 1980s, Korea's growth trend has steadily declined (see Figure 5.3). What was the cause of this dramatic change in Korea's economic performance over the 60-year period? I believe the different policy regimes are to blame and will discuss this below.

5.2.1 General Guiding Principle of Development Policy in the Developmental Era

Park Chung-hee was President for 18 years during Korea's developmental era, when he intended to rapidly industrialize the economy. During his

rule, Korea turned into a typical example of government-led development. Educated during Japanese rule, Park Cliung-hee looked at the Japanese model of the post-Meiji condensed development era, as well as the post-World War II take-off, to derive lessons from them. His policy stance on industrialization was always based on the principle of helping those who help themselves. In other words, never fail to reward a merit, or let a fault go unpunished; which would be the main factor motivating the Korean people to work hard and achieve prosperity.

The point to keep in mind is that the Korean government, under 18 years of Park's rule, played the role of economic motivator by helping only economically successful performers. Two important episodes illustrate this guiding principle. The first episode relates to Park Chung-hee's pragmatism towards industrialization and economic development. In the early 1960s, Park as the leader of the military coup made the bold decision to set free most major business leaders who had been charged with tax evasion and sent to prison by the military government, under the special condition that they should work for their country and repay all the evaded taxes by inducing foreign capital. The main idea was that by doing so, these business people would contribute to the nation's economic development. Park recognized that even if they were corrupt, they were the only people at the time who knew how to manage a corporation and therefore could be instrumental in fulfilling the economic manifesto of the coup, which was to develop the economy. Interestingly he made this decision by overriding the political manifesto to clean up corruption. Thereafter, the reinstated business leaders embodied the ideology of entrepreneurship with a mandate to help develop the nation's economy through industrialization, and not just to seek individual profits; which, interestingly enough, paralleled the Japanese entrepreneurial ideology of enterprise for national economic strength and prosperity, not for individual profits, of the Meiji era and beyond. Of course, there had been times when their credo for national economy was not always fulfilled and may not have met social expectations, but it cannot be denied that Park's decision to free the business leaders to participate in the national campaign for industrialization certainly helped to motivate them, and other Koreans, to work harder and to contribute to the nation's industrialization.

The second episode relates to Park Chung-hee's firm determination to establish a performance-based reward system as a motivational mechanism. In the early 1970s, Park pushed for the New Village Movement or 'Saemaul Undong', now acknowledged as one of the most successful socio-economic reform projects for the farm sector, and urged that it should be based on the following discriminatory principles:

As the result of supporting 32000 villages in the whole country to awaken farmers' and fishermen's strenuous spirit, though it wasn't that much, there were some villages that performed well and others that did not. With this experience, rejecting the idea of uniform support, we have decided to support only 16000 successful villages, roughly half of the previous year's number. It means the villages which did a poor job last year should stay back and be left out of the project, and those which did well will be constantly supported in this second year. This year's 16000 villages will be examined in autumn for their performance and will be promoted to the upper third grade next year if they do a good job. And if the flunked villages which got a bad score last year make more efforts, become united and make progress this year, then, they will be selected and promoted to the second grade with the same amount of aid. And then, if their score is bad next year, they will be degraded, but otherwise, they will be promoted to the third grade. Those promoted villages in the third grade if they do well will be upgraded to the fourth grade with full support, which is the basic principle of governmental support for the Saemaul Movement. Why do we have to do that? The answer is simple. We have witnessed the results of uniformly helping all villages in farming-fishing sectors were not as good as expected. I think we should help first those villages which are diligent and help themselves. Even if those villages are neighbors, it is always possible that ones are getting better and better in their living standard while others step far behind, depending on their efforts. It is rather unfair if we assist equally both villages, the ones being degenerated with gambling, drinking, and indolence and the others trying to live a better life. Those steadily self-improving villages will be able to stand on their own feet with a little more government support. Of course, others which are left behind would complain about it. The voices from villages which are lagged behind may sound louder than those from the well-behaving villages. But we should never mind those complaints.¹³

5.2.2 New Interpretation of Development Policies in the Developmental Era

Having mentioned the general guiding principle of economic development policies during the developmental era, a brief discussion on individual policy episodes is in order. Under such a principle, it turns out that most of Korea's successful developmental policies during its economic take-off period of the 1960s and 1970s had been very discriminatory, always helping those high economic performers and thereby motivating economic agents, people and corporations, to work harder for their own economic success. The point is that government support was always differentiated and based on market performance. Seen from this perspective, I now look at a few more examples of such discriminatory policies.

The first discriminatory policy was the export promotion policy that favoured mainly better export performers. The export-led growth strategy was a kind of public good adopted by many developing economies in the last 50 years. A textbook of international economics is usually full of ideas

on how to promote exports, such as market opening policies, exchange rate policies, financial support policies, marketing strategies, free trade area strategy, overseas investment strategy, and so on. However, how many developing economies have been able to achieve such remarkable export growth as Korea has achieved in the last 50 years? Very few, and none as dramatically as Korea. What, then, was the key to Korea's remarkable export growth?

Export promotion policy in Korea in the early developmental era always favoured high-performing exporters, so the policy succeeded in motivating exporters to work harder for their earnings. Competitive rivalry among exporters towards being better or the best performers prevailed for more than 20 years and became a kind of cultural DNA of Korean firms. Provision of a sound macroeconomic environment such as a stable domestic price level, stable and competitive (not overvalued) exchange rates, and a system of export credit are important factors for export activities. However, Korean experiences seem to imply that such textbook recommendations may not be enough. Together with and beyond that, government-led discriminatory support for high export performers seems to have been a necessary supplement for extraordinary export performances.

After achieving the \$100 million export value mark on 30 November 1964, monthly meetings by the extended export promotion committee consisting of export-related ministers, export business representatives, commercial bankers and representatives of business associations, led by President Park, were regularly held since 1965 to do the following things: monitor monthly export trends, merchandise and regional export performances, and determine the policy directions for export promotion and to break through export bottlenecks.¹⁴ Also, since 1964, at the end of every November (commemorating the achievement of the \$100 million dollar export mark on 30 November 1964), the government held the so-called National Export Day Ceremony, in which the best performers were selected and national achievement medals were conferred upon them, turning them into national heroes.

On the National Export Day, Korea's exporting firms were all subject to performance evaluation and ranked accordingly. In a sense, all firms in Korea participated in the export 'beauty contest', and according to the outcome of the contest, bankers were ready to lend to the high-ranking firms. This event served as a kind of loan screening process and the high-performing firms that were victorious in the contest were granted export credit by the banks, as well as honour and respect by the people. Also important to note is that the contest was not a one-time event. Every year, on the same day of November, the contest took place in the same way, for 15 years during Park's regime and thereafter. The contest was open to each

and every firm, regardless of industry and size. This was the government-led discrimination and motivation mechanism. Now, to Korean firms and entrepreneurs, continually exporting more and more became almost a matter of life or death. The best performers in this contest would be almost sure of success in earning more bank credit and government subsidies and favours, and even more importantly, would become honoured as national heroes. The only sure way towards business success in Korea was to become a high ranker in this export game.

Many of Korea's bright young people were motivated to become successful exporters and national heroes. Also, through this process, many innovative ideas emerged and were replicated for the export business. The result of this is, of course, an unprecedented booming export sector. Also the spirit of 'can-do' became embodied in Korean businessmen, and became part of the DNA of the business mind.

Korean experiences reveal that, firstly, it may be necessary for the government to adopt a highly discriminatory export promotion policy, beyond what the textbooks would recommend, if a visible outcome of export growth is desired; differential government support based on export performance was a key factor for Korea's success. Secondly, the selection of high-performing exporters should be based on market performance through transparent evaluation criteria to avoid the politically inclined government's messy intervention of 'picking the winners'⁵ ahead of market outcomes. Thirdly, the export contest should be open to all firms in all sectors and of all sizes, and should be run regularly, thereby promoting keen rivalry among the firms and minimizing the possibility of rent-seeking behaviour. And, finally, it can be seen that an export drive with built-in performance-based incentives may have a better chance of success.

The second discriminatory policy, the New Village Movement or 'Saemaul Undong' is acknowledged to have been a highly successful rural development strategy, selecting and supporting successful villages that promoted rural development. While so many recent latecomers have tried to replicate Korea's Saemaul Undong, none have been as successful as Korea. What were the success factors for Korea's Saemaul Undong? Was the education and moral suasion enough to stimulate the Saemaul Undong spirit of self-help? Was it a government-forced movement? What other factors played a role in its success?

Under Saemaul Undong, the government supported those villages which helped themselves in the spirit of self-help, thereby succeeding in motivating all villages to actively participate in the Saemaul Undong and to work hard enough so as not to lag behind. This is vividly expressed by Park's comments quoted above. An additional statement by Park on Saemaul Undong is as follows:

For those farmers who only dwell on one's own misfortune of being poor and complain that the government does not help them and that their poverty is due to others, it is impossible to overcome such difficulties even after hundreds of years. Supporting the people who are not self-motivated is a waste of money. Even a country cannot help those who do not help themselves.¹⁵

This was the message repeatedly given by the President at the beginning as well as during the whole period of Saemaul Undong.

A few more details of the Saemaul Undong policy implementation are in order, even if repetitive. In 1970, the first year of the movement, there were 34000 villages, and 200-300 packs of cement with about 1 ton of steel bars were provided with the following messages: (1) do not distribute cement to individual households, but rather utilize them for villages' social overhead capital construction; and (2) decide what project will be undertaken from the ten-project list recommended by the government, through the consensus-building process of village meetings. After six months, the government evaluated the project performances of all villages by open inspection, and even a secret monitoring process. The result was that 16000 villages made some progress but 18000 villages did not make progress, or did not participate at all. With these results, there were hot debates on how to proceed with the next round. The Ministerial Cabinet meeting decided to repeat the same procedure, but with more active moral suasion for the Saemaul Undong self-help spirit. But President Park overrode this decision in spite of objection by the ruling party leaders. He decided that for 16000 successful performers, more cement, up to 100-200 packs, was to be provided in addition to the previous provision, together with a handsome amount of cash to the best performers; while the 18000 unsatisfactory performers received no cement and a strong message declaring that they would not be given any government support from then on, unless they made progress at their own costs.

In the second round, interestingly, 6000 villages out of the 18000 previously unsatisfactorily performing villages made progress through their own efforts and, of course, the high-performing 16000 villages continued to make progress. In the third round, the government picked the 6000 newly successful villages from the second round as the villages for support, together with the 16000 continuously high-performing villages.

President Park classified villages according to their performance, the highest-performing, self-sufficient ones as third-grade; moderately-performing, self-help ones as second-grade; and the lowest-performing ones as basic or first-grade. He then declared that the third- and second-grade villages would receive government support, but left out the first-grade villages. This is totally opposite to the policy stance in most of

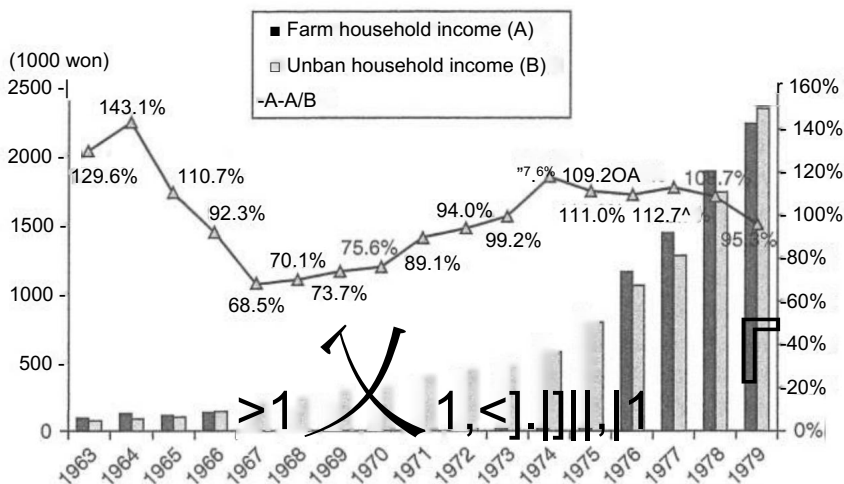


Figure 5.4 Trend of farm and urban sector average household income

the public policies taken by later governments. Egalitarianism or equality-seeking governments would support the first-grade basic class more than the second- and third-grade classes.

The main lesson from Korea's Saemaul Undong is that the success factor for the movement is the government's stubbornly keeping to its discriminatory policy of only supporting the better-performing villages, following the principle of 'God helps those who help themselves'; and thereby the government succeeded in motivating other villages to participate in the movement by creating a self-help spirit as well as a 'can-do' spirit among the people. With the successful Saemaul Undong, together with the productivity increases in agriculture thanks to innovations such as an introduction of new varieties of rice, Korea's farming sector enjoyed better economic conditions in terms of household income than the urban sector for a brief period starting in 1974, during the last part of the Park's regime (see Figure 5.4). However, under the post-Park regime of egalitarianism, the Saemaul Undong unfortunately changed to an egalitarian system adopting the equal share (1/n) support policy stance that disregards economic performance. Hence, its discrimination power was much weakened, and thereafter the growth of farm incomes began to lag far behind that of the urban sector.

5.2.3 Korea's Industrial Policy

What were the success factors of Korea's industrial policy? Was it even successful? It may be argued that Korea's industrial policy was successful because the industries that were promoted are now leading the country's industrial sector, and those corporations that received government support are now globally competitive firms. However, not only does neoclassical economics relegate industrial policy as inappropriate since it distorts market allocation, but also it is interesting to note that we have not witnessed many major successes in the latter half of the twentieth century. Furthermore, Korea's heavy and chemical industry (HCI) drive of the 1970s has been officially declared a failure since the 1980s by the Korean government and academia, as well as by international economic organizations such as the World Bank. However, Korea's HCI drive has become the basis for Korean industrial dynamism that is now leading Korea's exports. How can this puzzle be resolved, and what can be learned from this?

There are a number of arguments regarding the role of industrial policy in Korea's development. Firstly, market fundamentalists have argued that the success of the HCI drive, as well as the Korean economy as a whole, derives from improved market institutions such as private property rights and economic freedom, and not from Korea's industrial policy. Some commentators recognize Park's contribution to developing Korea's market economy, but do not give due credit to the contribution of industrial policy. It is argued that despite Park's efforts, industrial policy had only a negligible impact and in fact did not distort the market substantially. Sometimes Park's industrial policy is interpreted as market-confirming.¹⁶ Some, however, argue that industrial policy in Korea actually did more harm than good, by causing resource misallocation. Without Park's industrial policy, they say that Korea would have grown at an even higher rate (above the 10 per cent annual average during his regime). They recognize neither Park's nor industrial policy's contributions. This is, however, a counterfactual historical argument which is difficult if not impossible to verify empirically.¹⁷ This interpretation does not recognize the positive role of government in economic development. Secondly, industrial policy proponents such as Amsden (1989) and Chang (2002), on the other hand, argue that Korea's economic advancement was due to the carefully planned and implemented industrial policy. However, there are no explanations or systematic reasons provided for successful or failed industrial policy, or why most of the many developing countries adopting industrial policy have in fact failed to achieve economic growth and prosperity. Here the debate often ends in stalemate, not unlike the debate on the market versus the state.¹⁸

I interpret Korea's industrial policy as a discriminatory corporate promotion policy that selected and supported those corporations which achieve better market performances, which I argue was the key to Korea's industrial policy success. For example, most of all, Korea's HCI drive of the 1970s permitted only internationally competitive, money-making companies to enter the heavy and chemical industrial sector. In fact, in my judgement, the HCI drive succeeded in spite of official declarations of failure, since these have now become the main industries leading the Korean economy. The key reason for success is that the discriminatory industrial policy allowed only successful exporting companies in the global market to enter the heavy and chemical industry sector by imposing the condition of investing seed money themselves, and thereafter the government would provide the remaining investment requirements. There was of course an active monitoring and restructuring process, when needed, for example with the government driving out insolvent companies. Note that the government at the time effectively controlled scarce foreign exchange, allocating it to corporations worthy of support as a means of industrial policy. The point to keep in mind is that the government reinforced market outcomes, rather than intervening against the market.

In addition, Korea's small and medium-sized enterprise promotion policy was also based on Park's discriminatory principle, by selecting and supporting better-performing small and medium-sized enterprises (SMEs). Korea's SME promotion policies, which started in the mid-1960s, had the following distinct characteristics. Firstly, the government realizes early on that it could not support each and every SME (regardless of performance), and needed to be selective in their support. SMEs that did not show any competitiveness were allowed to go bankrupt, and were merged into competitive enterprises. Secondly, SMEs are not different from large corporations except for their size, and should not be treated with any special favours or protection. Third, Korean SMEs should specialize and be internationally competitive in their area of business. Even the Smaller Business Mediation Law in 1964, which is the origin of the current law reserving special business areas for small and medium-sized enterprises in Korea, incorporated this basic position. This policy helped competitive SMEs to grow into internationally competitive large *chaebol* corporations. However, Korea's SME promotion policy was changed drastically in the post-1980s period.

It is worth mentioning also that the semiconductor and information technology (IT) industries promotion policies in the 1980s was successful in allowing *chaebols* to engage in these sectors, despite the then *chaebol* regulation regime. In the 1980s, the post-Park era, Korea's corporate policy landscape changed dramatically into a regime that regulates the expansion

of large corporations. However, the Fifth Republic allowed certain *chaebols* such as Samsung, Hyundai, Daewoo, LG, SK and KT, and a foreign company, Maxon, to enter the semiconductor and IT industries. This policy was diametrically opposite to the then social, economic and political atmosphere of regulating large corporations and supporting SMEs. In a sense it was a very bold and discriminatory industrial policy.

Korea has also experienced a number of failures under its industrial policy. Many of these turn out to be cases of government-led anti-discriminatory industrial policy in which egalitarian support is emphasized. Examples of failed cases are, firstly, the movie industry promotion policy in the 1970s that adopted quantitative measures such as the number of movies, rather than qualitative or business performance measures such as the size of audiences or profits, as the main performance criteria. As a result, the policy encouraged the production of many cheap, poor-quality movies. This demonstrates the importance of selecting the right market performance measure for successful industrial policy. Secondly, SME promotion policy since the 1980s largely gave up the previous discriminatory policy stance and turned into an egalitarian-type 1/n support system in which only an arbitrary SME stipulated size was considered. This was a demotivational system generating widespread moral hazard and rent-seeking on the part of SMEs. Once government support policy lacks the feature of discrimination, it fails to motivate economic agents to work hard and erodes the spirit of self-help. The result was a growing number of non-competitive, barely surviving SMEs that did not grow into bigger firms. Thirdly, the venture company promotion policy during 1998-2002 also lacked the success feature of Korea's traditional industrial policy, that is, its discriminatory support. There was no mechanism in place to discriminate high market performers over low performers. With this egalitarian policy breeding an attitude of 'once a venture company, always be a venture company*', inefficiencies became inevitable as the re-evaluation of performance outcomes was neglected. Furthermore, and interestingly enough, in Korea's post-developmental era, most so-called industrial policy have tended to become a kind of egalitarian 1/n support system, demotivating exactly the policy objects that were intended to be promoted.

By way of summary, I list a number of implications and lessons from Korea's industrial policy:

1. Government-led discriminatory economic policies are a necessary condition for successful industrial policy. Industrial policy should support better-performing economic agents, thereby making them a market outcome reinforcing institution.

2. Successful industrial policy turns out to be a corporate promotion policy targeting corporations rather than general functions such as research and development (R&D), as argued by mainstream consensus; or industries, as argued by traditional industrial policy proponents. That is, industrial policy should be discriminatory in its support, based on corporations' market performance.
3. Following market signals, successful industrial policy should select market winners for support, rather than picking the winners before the market.
4. Specific performance measures for selection should be clearly and transparently set.
5. This policy contest should be run regularly, with re-evaluation of performance and reselection for support based on market performance.
6. The policy contest should be open to each and every firm in the economy.
7. The entire process should be institutionalized under a formal rule, which should be fairly and transparently enforced.
8. In addition, the general government role of providing socio-economic infrastructure should also be strengthened, together with an effective financial support system, skilled labour supply system, R&D provision system and efficient supply of industrial parks. For economic development, it is imperative that an incentive structure favouring high-performing agents is firmly in place and built into the socio-economic system.

5.2.4 Korea as a Case for Corporate-Led Growth

In hindsight, Korea's economic development can be seen largely as a process of corporate growth. Today's Korea's leading corporations or *chaebols* were small and medium-sized enterprises in the late 1940s to early 1960s, but they have grown to become large, internationally competitive corporations. It was a rather rare occurrence in the world economy for corporations to grow at such a rapid rate, particularly during the latter half of the twentieth century. The growth process of business corporations from SMEs to major *chaebols* was critical to Korea's economic development.

In other words, Korea's industrial policy was a mechanism to speed up the growth of firms by activating the internal growth path through helping those corporations which performed better than others, and the external growth path through letting successful firms acquire failed and poorly performing firms mainly through a government-led mergers and acquisitions process. More specifically:

1. Better-performing exporters were given the needed financial support and tax benefits and were guided to take over the lower-performing exporters. In particular, the general trading company system after Japan contributed not only to export promotion but also to the formation of Korean *chaebols*)⁹
2. Small and medium-sized enterprise promotion policy supported the better-performing firms with financial as well as tax benefits, and they were given the choice to take over the poorly performing firms. The 'self-help' spirit of the New Village Movement (Saemaul Undong) was translated into factories, especially factories working in the export sector. The Movement also helped to promote small factories in rural areas that were manufacturing agricultural products to become exporting firms.
3. Only successful exporters that were profitable in the global market and accumulated capital were allowed to enter the heavy and chemical industry sector.
4. In the continuous process of restructuring during the development era, insolvent firms were always taken over by competitive firms.

Through this process, a number of SMEs established in the 1940s to 1960s grew into big internationally competitive companies in the 1980s, and some are now the world's best companies.²⁰ In fact, as I have already argued, Korea's industrial policy was indeed a corporate promotion policy, based on discriminatory support for economically successful corporations.

5.2.5 Egalitarian Economic Policies since the late 1980s and the Beginning of Korea's Economic Demise

I now turn briefly to the question of why Korea's growth potential has declined in the past 40 years or so since the late 1980s (see Figure 5.3). In the post-developmental era, Korea adopted various new policy initiatives to become a developed economy. For 30 years Korea has made its journey to becoming a market economy largely by dismantling the economic discriminatory policy regime of Park's developmental era in the hope of further transforming Korea into a developed nation, largely on the advice of institutions advocating the Washington Consensus. However, it took 20 years to lift per capita income from \$10000 (in 1996) to \$25000. The growth rate has rapidly declined to the 2-3 per cent range, with income distribution worsening in the late 1980s and 1990s. Korea now suffers from low growth and worsening inequality. The 'Korean miracle', with one of the best records in terms of 'inclusive growth*' for 30 years under Park's policy regimes has now been turned into 'exclusive stagnation*', not unlike

many of the ailing Western economies today. The Korean economy has experienced not only a dramatic rise but also a rapid fall in a relatively few decades. What has been the reason for such erratic transformation?

Since the late 1980s, Korea adopted an anti-discriminatory, egalitarian policy regime. Egalitarianism dominated in all areas of policy including economic and industrial policies, corporate policies, regional development policies, education policies, industrial-relation policies, and others. This period is in fact the era of 'economic democracy', in which political concerns have overridden economic concerns contrary to the developmental era, and economic democracy has come to pave the way for the establishment of egalitarian, development-unfriendly economic policies. For the last few decades, Korea has maintained an egalitarian economic policy regime by dismantling the previous discriminatory developmental policy regime. Examples of Korea's egalitarian policies adopted in the post-1980s are as follows:

1. The discriminatory industrial policy targeting corporations has given way to the functional approach where targeting functions such as R&D and education is preferred, and this paved the way for egalitarian industrial policy by which the government supports equally every firm engaged in R&D regardless of their market performance.
2. Special regulations of large corporations (those ranked among the top 30 in terms of asset size) were introduced in the mid-1980s that limited or constrained the business activities of the *chaebol*.
3. A uniform, non-differentiated SMEs (with less than 300 employees) support system was introduced in the mid-1980s.
4. The government introduced the balanced regional development policy in 1982 which, among other things, strictly restricted the entry of large corporations and four-year universities in the Seoul Metropolitan-Gyeonggi province area.
5. Education excellence in high schools became increasingly sacrificed under the influence of teachers' unions from the late 1990s and beyond, especially with the repeal of the entrance examination following the educational (opportunity) equalization policy introduced in the mid-1970s.
6. The government increasingly adopted and strengthened an egalitarian, failing European-style social policy from the late 1990s.²¹
7. It now seems obvious that the key reason for the downward shift of Korea's growth trend resides in the policy regime shift since the 1980s, including the institutional change from a discriminatory, motivational policy regime to an anti-discriminatory, demotivational, egalitarian policy regime.

In sum, the sudden swing of the pendulum is due to Korea having adopted European-style social-democratic policies in recent decades. An interesting observation here is that Korea not only replicated or free-rode on successful Japanese catch-up know-how during the developmental era, but also followed the failing Japanese footsteps of social democracy in the last 30 years.²² The post-Park economic policy regime is largely anti-discriminatory, and any high hopes of becoming a developed economy might not be fulfilled. Economic policy has become demotivational, addressing social rather than economic concerns; here the social concern is inequality, with policy requiring egalitarian redistribution and 1/n allocation among economic agents.

5.2.6 Implications of Korean Experiences

The main implications and lessons to be learnt from Korea's experiences are as follows. Firstly, the government can help to develop the economy beyond the market only if it plays its role as a motivational discriminator by adopting discriminatory economic policies and institutions. Secondly, a better term for 'industrial policy' is discriminatory 'corporate promotion policy', which highlights its motivational feature that stimulates the growth of corporations. Furthermore, according to the experiences during the post-developmental era since the mid-1980s, the government industrial policy support targeting functions or industry has turned egalitarian by supporting all constituent firms equally, regardless of their respective performances. It turns out that this functional or industrial targeting policy has been wasteful, because such policy tends not to be selective and focused or based on performance, and therefore becomes demotivational by supporting all firms equally. Industrial policy should not target functions or industries, but individual corporations, based on the dictum 'God helps those who help themselves'. As already mentioned, the growth of high-performing corporations is critical for the nation's industrial development process.

To conclude, economic discrimination based on performance is indispensable for successful government intervention in the market; which implies that economic discrimination is a necessary condition for development, as seen from the experiences of the pre-1980s developmental era. In contrast, the experiences of the post-1980s egalitarian policies, which tend to be demotivational, implies that egalitarian support policies tend to bring about economic stagnation.

5.3 CHINESE ECONOMIC DEVELOPMENT

China has been even more fortunate than Korea because it has had not only Japan but also Korea as examples of rapid economic growth and development. True to Chinese characteristics, the country has been very pragmatic in adopting the development models of its neighbours.²³ While the essence of the Chinese model was not much different from the model of condensed development of Japan and Korea, China seems to have been better at replication compared to Korea.

Chinese development is government-led as well as corporate-led. Its development policy has been very discriminatory, similar to the Korea and Japanese models. The development of spontaneous markets has not been very visible. Deng Xiao Ping's strategy for economic development was his theory of the 'Rich-Led Nation'.²⁴ This can be interpreted as that the rich should move ahead, while the poor follow and learn the ways of the rich. This theory can be interpreted as his declaring that the communist manifesto, emphasizing equality for all, should be discarded. Accordingly, equality across people, corporations and regions is no longer guaranteed or desirable and, rather, those who help themselves and achieve success will move ahead, while those lagging behind will have to work harder to catch up with their successful counterparts. China has thus adopted a discriminatory, unbalanced policy regime in favour of the urban city over the rural village, industry over agriculture, and brains over manual work, which resonates with similar policies in post-Meiji Japan. The coastal regions of China which traditionally were economically better off enjoying stronger economic power due to easier access through trade with the outside world than in inland China, were provided the opportunity to open up and to develop by the central government, which delegated self-governing power to local provinces. At the same time these provinces were allowed to compete for more foreign direct investment from the world's best companies by providing certain privileges to the more attractive investors, for example, for those listed in the Fortune 500. Of course, private management of public corporations proceeded in order to help Chinese companies grow by granting them managerial independence under a profit-sharing contract with the government. In this manner, Chinese reform and opening based on the theory of the Rich-Led Nation has in fact brought about unbalanced regional as well as corporate growth, and income and wealth inequalities among people; which, interestingly, is inconsistent with the ideology of the socialist market economy declared to be the official Chinese economic system. The inconsistency between words and substance is a culmination of Chinese pragmatism. Economic discrimination among its people, corporations and regions based on performance,

and the resulting imbalances in outcomes, has been very much a part of the Chinese modernization strategy implied by the theory of the Rich-Led Nation, whether intended or not, and whether liked or not.

The theory of the Rich-Led Nation was even more evident in China's agricultural reform. From very early on in the process of economic reform, Deng strongly supported the household-based incentive farming system, in which households were allowed to keep any extra output after paying their due allotment to the government; although this system was at the time illegal and secretly adopted initially by 18 households in a small town, against the collective farming convention.²⁵ In fact, this amounted to nothing short of capitalist farming, which involves renting the land and equipment. Shortly afterwards, when this episode was exposed to outsiders and then to party leaders, there was heated debate on its illegality within the Party as this was seen as a serious violation of collective farming convention. On this issue, Deng commented as follows:

Following the deregulation on the agriculture after the 3rd central committee meeting on December, 1978, a certain village has adopted household-based incentive farming system and achieved a great success, thereby, changing rapidly ... While there are people who concern that this will negatively affect the collective farming convention, as far as I am concerned, this is of no concern at all.²⁶

Deng's strong backing for this farming system provided the momentum that helped to rapidly spread the incentive farming system to the whole of China's farming sector. No doubt due to the importance of this event for Chinese economic development, the Chinese government commemorates it by exhibiting an embossed copperplate of the 18 households' secret signing at the Beijing Historical Museum (see Picture 5.1). This new farming system motivated households to work harder, and thereby greatly contributed to the increase of agricultural productivity. It was a new beginning for Chinese agriculture's green revolution that rescued tens of thousands of hungry Chinese people.²⁷

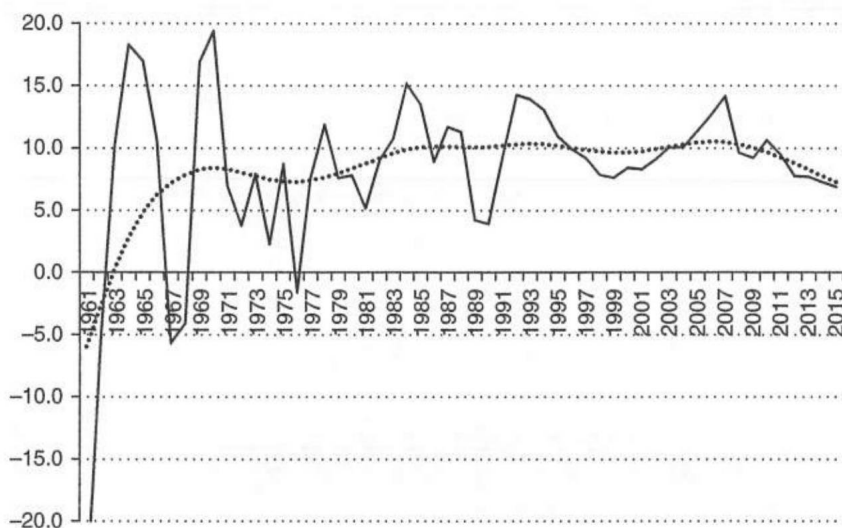
A similar corporate management system based on management outsourcing, in the same spirit as the transformed farming system, was encouraged among the public corporations from the early 1980s and legally enforced on every public corporation from 5 December 1986. This system grants the independence of management but keeps the management responsible for business performance under a profit-sharing contract with the government. It is easy to see how all these changes are implied by Deng's theory of the Rich-Led Nation.

Chinese economic reform and opening-up policies since Deng which are based on his theory of the Rich-Led Nation have exactly mimicked



Source: Beijing Historical Museum.

Picture 5.1 Secret sign-up for incentive farming by 18 households, Feng Yangyun (凤阳人) Shao Jang chon (小岗村) in An Hui sung (安徽省) province



Note: The trend (dotted) is calculated using HP filter ($X = 100$). The per capita income is measured in a constant local currency unit (base year = 2000).

Source: World Bank (2016).

Figure 5.5 Chinese long-term per capita income growth trend, 1961-2015

the discriminatory economic policies adopted by Korea as well as Japan. Those policies did not seek balance and equality among the people, regions, farmers and corporations, but instead allowed for the opposite to arise, such as economic agglomeration, concentration and imbalances. Those who did help themselves and became successful flourished, and others were motivated to catch up by learning success know-how from successful neighbours. This is the key success factor in the remarkable Chinese economic miracle over the past 30 years or so, beginning with Deng's regime in 1978 (see Figure 5.5). Of course, other policies of economic reform and opening-up as well as effective macroeconomic management have also been a part of the success story, but they are not as critical as the application of discriminatory policy guided by the theory of the Rich-Led Nation.

Along with this process, several mega-cities with a population size of over 10 million have emerged, especially in the coastal region, and they now lead the national as well as regional development by enjoying scale economies through agglomeration of economic resources and people, as well as creating synergy effects to other regions of the country. As

mentioned, this has led to unbalanced regional development. In addition, China not only hosts all the companies in the Fortune 500 list, but also has its own native companies included in that list, with numbers even surpassing Korea and recently Japan, and now taking second place to the US. China is a striking example, after Japan and Korea, illustrating how critical the growth of corporations, as well as the accompanying economic concentration on better-performing companies, is to economic development. In fact, every aspect of Chinese development suggests that the imbalances and inequalities are a necessary outcome of rapid economic development, just as was the case in Japan and Korea. However, the mainstream economists continue to express their concern about the scale of increasing inequalities in incomes and regional development. While inequality should not be encouraged beyond reasonable levels, we should realize that economic development and inequality may be both sides of the same coin. Economic development cum inequality, or political ideology of equality cum underdevelopment: which way should be advised for latecomers to follow? I will return to this issue later.

5.4 CONSOLIDATED IMPLICATIONS OF EXTENDED AND CONDENSED DEVELOPMENT EXPERIENCES

Having reviewed the condensed as well as extended developmental experiences, I summarize the following implications for economic development as follows. Firstly, the market is important to pave the way for development, but alone it may not be enough for rapid, condensed development. Secondly, the government is critical not only for condensed but also for extended development. There could be space for the useful, discretionary role of the government, beyond what is usually recommended by mainstream thinkers, to provide social as well as physical infrastructures and to correct market failure in the neoclassical sense. The government can supplement and reinforce the market to drive a nation towards condensed development by adopting discriminatory policies that support economic agents which help themselves. Thirdly, the limited liability joint-stock company, or simply the emergent corporation from the blacksmith and the cottage industry, is a massively important instrument of the modern capitalist economy and an indispensable key player in economic development. One cannot imagine the development of the capitalist economy without the emergent growth of corporations. In this regard, the capitalist economy could be called the 'corporate economy' rather than the 'market economy'. Fourthly, and similarly, successful industrial policy turns out to

have supported successful corporations in targeted industries, with the key success factor being corporate promotion rather than industrial promotion. Therefore, industrial policy could be renamed 'corporate promotion policy'. Fifthly, economic development tends to bring about imbalances and inequality in economic resources, income and wealth, with the concentration of economic power to successful agents. Finally, the efforts to negate or not to allow economic differences, especially under egalitarianism, could lead to economic stagnation because this goes against the function of the markets and demotivates economic agents.

The above implications have also been confirmed partly or in general by other success and failure experiences of many Latin American and African economies, as well as newly developing economies including Taiwan, Singapore and India. While a detailed survey of all these experiences is beyond the scope of this book, it is possible to catch a glimpse of those experiences through casual observation. Taiwan is a well-documented success case, very similar to Japan and Korea in essence. Singapore, led by the former Prime Minister Lee Kwan Yew, has adopted a very discriminatory policy regime, similar to Japan, Korea and China, in seeking economic excellence by favouring better economic performers and rejecting egalitarian democracy. India, led by Manmohan Singh since the mid-1980s, is an example of a regime that successfully avoided egalitarian policy driven by socialist ideology, adopting a policy regime that seeks economic excellence. On the other hand, the failed Latin American economies such as Argentina and others have not been able to escape egalitarian political and economic regimes. Similarly, failed African economies, not much different in essence from the failed Latin American cases, have additionally suffered from the moral hazard created by aid from the West and general corruption.²⁸ In sum, all success cases involved the heavy use of economic discrimination and motivation for economic excellence, while those that failed gave way to anti-motivational, egalitarian redistribution demands by the masses, thereby giving up on economic excellence.

In this regard, the post-industrial revolution experiences of economic development seem to reveal two very important implications for economic development. Firstly, contrary to popular opinion, economic inequality might be healthy for economic development by motivating people towards pushing themselves to higher levels on the economic development ladder. And secondly, economic egalitarianism, especially the type that seeks equal economic outcomes, tends to do more harm than good to economic development. In this regard, Jwa (2008, 2012) and Jwa and Yoon (2004a, 2012) have stated that economic discrimination is a necessary condition for economic development, while economic egalitarianism is a sufficient condition for economic stagnation. The next chapter will elaborate further on this.

NOTES

1. This is analogous to the situation where biologists have had difficulty in understanding the nature of extended evolution, something that takes tens of millions of years. Hence I focus on condensed experiences that take place within a few generations. For example, during the 22 years from 1971 to 1993 in the Galapagos, Peter and Rosemary Grant conducted detailed field studies of the evolutionary changes of Darwin's finches over 22 generations, and discovered striking evidence confirming the Darwinian theory of evolution which, up until then, was not fully persuasive because the evolutionary process was seen to take place over too long a period of time to be easily and clearly appreciated (see Weiner, 1994 for this explanation). The evolution of Darwin's finches is the epitome of the general evolution process, not an exception. In the same vein, I think such condensed development could serve as an epitome of the economic development process. This is comparable to Schumpeterian discrete economic changes on the one hand, and infinitesimal economic changes on the other. Another useful analogy is that one can easily identify mountains and valleys when the surface of the Earth is condensed, compared to when it is stretched out such that the mountains and valleys spread out onto an extended plain and are not easily discernable.
2. See Minami (1986) and Ohno (2005) for reforms and economic development policies after the Meiji Reformation.
3. Interestingly enough, Morishima (1982, Chapter 3) also views this policy change as the important beginning of the *zaibatsu* formation, but very critically, radically different from the position I take in this book. He in fact calls those companies as 'government purveyors' or 'political merchants', while he is always sparing with words of praise for their achievements in the market (*ibid.*, p. 94).
4. In 1946, by the end of World War II, the big four *zaibatsu* controlled 25 per cent of the paid-in capital of Japanese firms, and if the six small ones were added, 35 per cent (see Minami, 1986, p. 149). The big four were Mitsui, Mitsubishi, Sumitomo and Yasuda, and the small six were Okura, Asano, Nomura, Furukawa, Nakajima and Nissan.
5. See Marshall (1967) for the long history of how such entrepreneurial ideology formed in the pre-war period since the Meiji Restoration. He sees that such ideology formed through the efforts of the businessmen originating from the samurai class, to maintain their self-conception of being in the traditionally highest social class of samurai even if they were doing the business of industry and commerce belonging to the lower class. They could be comforted by thinking that they were doing business not for personal profit, but for the country, just as the samurai had done.
6. See Johnson (1982) for the detailed evolution of Japanese industrial policy under the influence of the Ministry of International Trade and Industry in the post-World War I era. Also see Chapters 2 and 5 in Minami (1986) for an overview of the history of Japan's industrialization and industrial policy. Major instruments of Japanese post-war industrial policy are as follows: (a) financial aid (subsidies and low-interest loans) to important industries; (b) protection of infant industries with high import duties and non-tariff barriers; (c) preferential allocation of foreign exchange to important industries; (d) special accelerated depreciation system for imported machinery; (e) encouragement for foreign technology imports; and (f) administrative guidance.
7. The general trading company (GTC) is a company specialized in trading usually as a member of a *zaibatsu* family. The general trading company system was created only in Japan, and was not found in any other developed countries. The growth of the general trading company contributed to the growth of the *zaibatsu* (see Minami, 1986, p. 153 for this story). This system was later replicated by Korea.
8. See Morishima (1982, pp. 162-4). He appears to describe Japanese industrial policies during the pre- as well as post-war period as corporate promotion policies, even though he seems critical about such policies.
9. See Morishima (1982, pp. 199-200), who writes, 'In Japan the modernization of the country was pushed ahead so as to make ever greater the so-called "three differences".'

Modernization did not proceed in all areas of the countries and all spheres of society in the same way and at the same pace. In each sector within the country a nucleus was created which was way out ahead and equal in every way to its counterpart in the West, and modernization was pushed forward through enlarging these nucleus sectors. As a result Japan was rapidly able to achieve, at least in the past, the front line in terms of technological development, and utilizing what she learnt in this manner also promoted modernization in other sectors? However, he argues that such unbalanced development 'firmly rooted the dualistic structure in Japan and led to the emergence of a huge labor proletariat exploited by one small part of the population-capitalists and labor aristocracy' (p. 200). He seems, thereby, to be implying that Japanese model could not be advised as a potential model for backward countries.

10. The Japanese lifetime and seniority employment system had been motivational in generating keen performance competition among teams and groups, even if not among individual workers, within a corporation. See Morishima (1982) for a similar point. It seems to be the case that the system has been losing this important feature of performance competition and becoming demotivational since the mid-1970s.
11. It is interesting that Japanese education had been famous for its highly selective and discriminatory system, seeking educational excellence from the beginning of modernization until the 1970s when the flexible system was adopted.
12. Even Micklethwait and Wooldridge (2003), who most emphatically preach the importance of the role that the joint-stock company played in the process of the global Industrial Revolution, seem to express their negative feeling of *zaibatsu*, such as in the following. In both Germany and Japan, the government's habit of steering the economy in pursuit of national greatness reached an ugly zenith in the Second World War. One history nicely describes the Nazi approach to business, where small companies were pushed into a limited number of huge industrial groups in the service of the national machine, as "Listian economics gone berserk." The *zaibatsu* looked like feudal relics to Douglas MacArthur, who broke them up after the war. MacArthur had no doubt where to find the best model for the corporation: it was in the United States of Coca-Cola and General Motors' (ibid., pp. 98-9). While the war was a terribly bad thing, it is deemed good for the evolution of corporate governance structure to be left to the market forces driven by the underlying institutional environment, and therefore which business model will eventually be sustained will also best be determined by market forces (see Jwa, 2003 for this point). It is interesting to observe that *zaibatsu* were reborn after the MacArthur decision as *keiretsu*, a similar kind, though a slightly weaker form, of *zaibatsu*.
13. From the Presidential Archive of Korea.
14. Support policies at that time for exporting companies included: (a) 50 per cent reduction of export income tax and corporate tax for export companies earning foreign currencies; (b) exemption of import duties on the raw materials for export production; (c) special low interest offered for export finance; (d) establishment of the Korea Trade and Investment Promotion Agency (KOTRA) to collect information on overseas export markets, and to support export marketing; and of Goryeo Trade under the Korea Trade Association to support SMEs* export activities; (e) promotion of export manufacturing companies; and (f) honour prizes awarded to people and companies who contributed to the nation's export promotion.
15. From the Presidential Archive of Korea.
16. World Bank (1993).
17. This is the opinion of the ultra-market-centric group of some economists in Korea.
18. The typical example of this is Chang (2002). While he provides many examples of industrial policy for the now developed economies, he has never raised the question of why others in the twentieth century, except for a few, have not been successful with similar industrial policy. In the same vein, he has never been concerned about the issue of how Park's industrial policy was successful. He seems to simply say that Park's industrial policy was successful because it turns out to be so now.
19. In Korea, *chaebol* is a business group which is similar to the Japanese *zaibatsu*, and

in fact *chaebol* has the same meaning as *zaibatsu* in Chinese. As already mentioned the general trading company system in Japan played a key role in helping to grow the *zaibatsu*. For more details about Korean *diaebols* and corporate policy issues, see Jwa (2002a).

20. For example, a small shop exporting dried agricultural and fishery products in 1938 became the Samsung group holding the famous Samsung Electronics; a small auto repair shop, Hyundai Motor in 1946 and Hyundai Construction in 1947, grew into the Hyundai Group families such as Hyundai Motor group and Hyundai Heavy Industries; a small factory making facial cream and toothpaste in 1947 made up the LG group holding LG Electronics; a small exporting venture starting only with 5 million won (approximately \$5000 in current dollars) in 1967 grew into the Daewoo group, a global company which is now dissolved; a small manufacturer making textiles in 1953 became the group of SK Telecom.
21. What is meant here by an egalitarian, failing European-style social policy is a policy treating its beneficiaries equally on a 1/n basis regardless of difference in efforts and achievements to improve upon their own economic situation. Here, incentives are not differentiated depending on economic efforts or performance, and are therefore anti-discriminatory. Korea has increasingly adopted such an egalitarian policy in recent decades.
22. See Jwa (2008b) for more discussion on this.
23. Pragmatism has been part of Chinese cultural DNA. See Ma (2005) for how China emulated Korea's development experiences.
24. He first declared it as the leading principle of Chinese economic development at the Central Operation Committee of the Chinese Communist Party on 13 December 1978, which paved the way for the Declaration of Reform and Opening at the Third Meeting of Eleventh Term General Assembly of Central Committee of Chinese Communist Party on 18 December of the same year.
25. On 24 November 1978, 18 households in the collective farming camp of the small town Feng Yang hyun (豐陽縣), Shao Jang chon (小崗村) in An Hui sung (安徽省) province, secretly agreed upon a system of household-based individual farming in which each household individually and freely manages its own share of land and farming equipment and takes home the net output after paying the tax and a given allotment to the government. Information from 'Commemorating the Deng Xiao Ping's 100th Birthday', *China Youth Daily*, 13 August 2004.
26. Quoted from the article, 'Commemorating Deng Xiao Ping's 100th Birthday', *China Youth Daily*, op. cit.
27. Shao Jang chon under the new system achieved remarkable crop yields. The crop in 1979 (66000 kg) amounted to approximately the five-year sum of crops from 1966 to 1970, and per capita income increased to 18 times that of the previous year, 1978, income. The town delivered 12500 kilograms of crop as the quota to the government for the first time in 23 years, after no delivery since 1956. The crop increased from 15000 kg in 1978 to 600000 kg in 2003, by 40 times, and the per capita income increased from 22 yuan in 1978 to 2100 yuan in 2003, by 96 times. This is also from *China Youth Daily*, op. cit.
28. See Easterly (2006) for more details on Africa's case.

6. Corporations in economic development

In this chapter, I highlight the importance of corporations, or corporate firms, in economic development. More specifically, corporations can be viewed as a primary means of making a living in the capitalist world which substitutes for land in the agrarian context. Humans in the capitalist economy have found themselves relying on corporations for their livelihood. Those living in countries where corporations have experienced rapid growth often face a brighter future. Moreover, the middle class today are mostly engaged with the corporate sector, where most of the income in modern society comes from. The modern corporation - which includes the joint-stock company, the partnership company and the limited liability company - is a unique feature of the capitalist economy which does not appear in the agrarian economy. The early cottage industries and blacksmiths firms appearing in the agrarian economy were mere precursors to the modern corporation, a major strength of which is its ability to expand its capital base to an almost unlimited scale.

It is a common misconception to associate the market economy solely with the capitalist economy, as mainstream market-centric thought often mistakenly implies. Markets also featured heavily in the agrarian economy for tens of thousands of years. So what distinguishes the agrarian economy and the capitalist economy as we know it today? Fundamentally, the corporation is what makes the capitalist economy what it is; if corporations were removed from the capitalist economy, then it would revert to the agrarian economy. This is vividly evidenced by the experiences of the former socialist economies which had nationalized corporations early in their socialist experiments, and consequently reverted to agrarian economies after their eventual collapse. I will argue in this chapter that corporations are in fact a market expander, rather than serving as a substitute for the market as implied by Coase's theory of the firm.¹ Subsequently, I will justify why the capitalist economy should be called a 'corporate economy \

6.1 IMPORTANCE OF CORPORATIONS IN ECONOMIC DEVELOPMENT

I have already hinted in several places the importance of corporations in economic development. In this chapter I discuss further their role in the emergence of economic development.

I begin by looking at some important features of the corporate firm to better appreciate its role in the capitalist economy. Firstly, the main difference between the pre- and post-capitalist economy has been the rise of a new social technology, the corporate firm or corporations, which were initially chartered as joint-stock companies during the early period of the Industrial Revolution and later acquired limited liability status in the mid-nineteenth century.² Secondly, the corporation ever since its inception has been given a unique capacity to extend its capital base to an almost unlimited size, allowing it to take on more risk and, in a sense, to create something out of nothing. It has become the foundation not only for utilizing and commercializing existing technologies and opportunities, but also for creating new ones by organizing capital, labour and technology in a complex manner and at a large scale. This new creature, the corporation, is fundamentally different from pre-capitalist Smithian firms like the pin factory, which has been adopted as the symbol of specialization theory, as well as the brewery, the butcher shop and the bakery which all work in their own self-interest to eventually allow everyone to have their dinner, becoming the basis for the famous 'invisible hand' theory of the market.³ More importantly, it does so in a non-linear, interactive manner through which it emerges to a higher-order complex system, which is much more than what the neoclassical (homogenous) production function with linear additions of capital, labour and technology would entail.⁴ Thirdly, the modern capitalist economy has replaced the agrarian economy by taking the majority of people off the farmland and placing them into capitalist firms; most significantly, under the control of modern corporations. As a result, the weight of the agricultural sector in the overall economy in terms of the percentage of total gross domestic product (GDP) has declined to single digits in most of the developed economies, while the bulk of GDP constitutes corporate activities not only in manufacturing but also in the services sector. Note that even agricultural activities in the modern era are increasingly managed by corporations. Fourthly, Adam Smith strongly favoured the small, family-owned or individually owned companies over large corporations, which during his time were mostly government-licensed monopolies engaged in the management of the colonies, and so must have been relatively inefficient.⁵ In the modern era, influential management gurus like Alfred Chandler argue in favour of large corporations often championing

the corporation as the locomotive or engine of growth and development.⁶ The Nobel laureate in economics, Herbert Simon, in fact gave preference to the organizational economy rather than the market economy.⁷

How can the capitalist economy be most accurately described? Basically, private corporations play a key role, no less than the markets and the government, in the development of the modern capitalist economy, to the extent that the capitalist economy can be referred to as the 'corporate economy' rather than the 'market economy*'. Here, it is best to define a corporation as broadly as possible as a kind of social technology characterized by team production and jointly owned legally by multiple joint-stock limited liability shareholders. I use the terms 'corporation', 'corporate firm' and 'company' interchangeably, while 'the firm' is a generic term popular in the neoclassical economic literature.

6.2 FIRMS AS SUBSTITUTE FOR THE MARKET OR AS INSTRUMENT EXPANDING THE EXTENT OF THE MARKET?

Coase's (1937) theory of the firm is perhaps the reference paradigm of the theory of firm in the modern era. Its main implication is that the firm is a competing mechanism with the market, and substitutes for the market depending on the extent of market transaction costs. As transaction costs increase, the firm increasingly encroaches upon the realm of the market and substitutes for it. That is, the firm is viewed as a substitute for the market, which implies that the firm reduces rather than expands the extent of the market.⁸ However, this seems contradictory to the idea that economic development involves the expansion of markets by firms' efforts in creating new economic activities that would otherwise not have been produced in the market, owing to high transaction or information costs. Essentially, the point to note is that the firm must be considered as an instrument expanding the extent of the market.

How can these apparently conflicting implications be explained? The Coasean theory seems to take as its reference point the model of perfectly competitive market without transaction costs under the full information to evaluate the firm's role vis-a-vis the market. Starting from the perfect information market, a predetermined maximum size of some ideal market is assumed, and the firm is seen as substituting for or encroaching upon the realm of this market. Here we have an inverse relationship, whereby the rise of firms corresponds to a contraction of markets. Put this way, it is understandable why firms are scorned as working 'against' a perfect economy. Furthermore, Coase's market substitution theory of the firm,

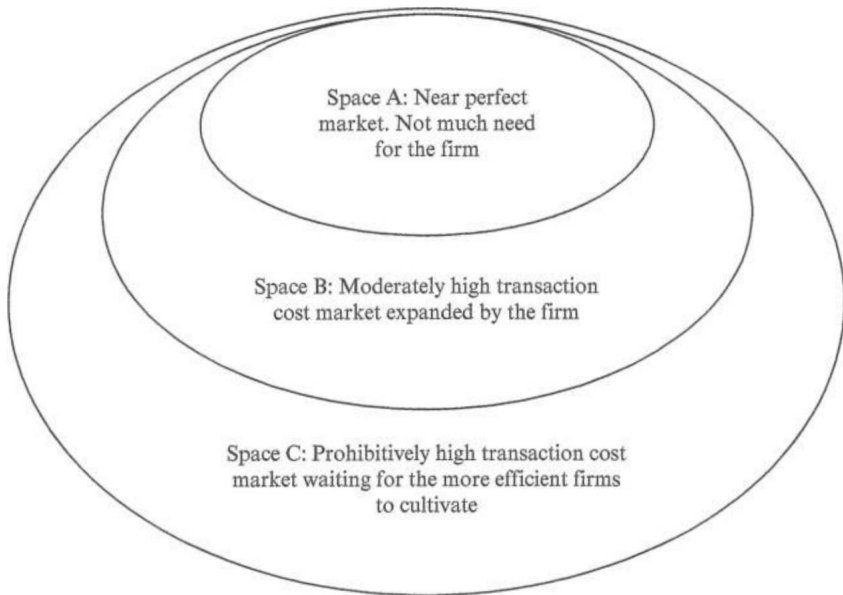


Figure 6.1 Role of the firm as instrument expanding the extent of the market

with a perfect-information market as its reference point, remains essentially locked into the neoclassical economic framework. As a consequence, Coase's theory of firm fails to give due credit to the important role of the firm in economic development, which requires reference to be made to the real imperfect market to realize the market-expanding role of the firm.²⁴

Figure 6.1 illustrates the role of the firm as a market expander in economic development. Space A corresponds to the relatively less developed economy, where the extent of the market is very limited and exchange occurs mostly among friends, acquaintances and locals. Spot transactions are the dominant feature of this economy, and only very basic, primitive firms exist. Space B is a relatively more developed economy in which firms are active in cultivating the new high transaction cost economic space, thereby expanding the realm of the market. In this case opportunities presented by international trade could greatly augment the extent of the market, which is exploited further by innovative firms. Finally, space C is waiting for the most innovative, high-risk-taking firms to cultivate and eventually be integrated into spaces A and B. Here the corporate firm is the main instrument expanding the extent of the market.

Referring to Figure 6.1, in the context of Coase's theory, initially it is

assumed that a perfectly competitive economy would exist in the $A + B + C$ (or $A + B$) space. With positive transaction costs assumed, the realm of the market is reduced to A and firms occupy $B + C$ (or just B). Note that firms are substituting for the market, from its ideally larger size of a supposedly ideal zero transaction costs market. But, as I have mentioned, this view is not useful for the discussion of economic development because development entails the process of cultivating the imperfect but new market opportunities, and thereby expanding the realm of the economy.

In addition, regarding the extent of substitution at the margin, 'given the size of the market', Coase seems to imply that there could even come to exist only one firm in the economy, by saying that:

It seems therefore possible that quite apart from the question of diminishing returns the costs of organizing certain transactions within the firm may be greater than the costs of carrying out the exchange transactions in the open market. This would necessarily imply that there were exchange transactions carried out through the price mechanism, but would it mean that there would have to be more than one firm? Clearly not, for all those areas in the economic system where the direction of resources was not dependent directly on the price mechanism could be organized within one firm.⁹

Arguably, the firm in a specialized market economy can substitute factor markets entirely, but not the product market. If the firm substitutes for the product market, say by government decree, it becomes the consumer of its own products, then we end up with the 'one-firm' former socialist soviet economy substituting for the whole market economy.¹⁰ The one-firm economy can therefore be possible only under a kind of planned socialist system in which the central planning committee owns and distributes the whole national wealth, under its full control. However, in the exchange market economy under private ownership, the one-firm economy is contradictory and impossible. As a market expander, rather than substituting for the market, regardless whether partially or completely, the corporate firm, with its ability to raise unlimited capital at least in principle, should be thought of as the most important engine for economic growth and development in the capitalist system.

6.3 TRANSACTION COSTS, FIRM SIZE AND ECONOMIC DEVELOPMENT

The economics Nobel laureate Douglass North and New Institutional Economics (NIE) proponents argue that the growth of firms corresponds to economies having lower transaction costs.¹¹ This would seem to be the

case, as it is a general observation that more and larger firms are found in developed economies. But how does one reconcile with Coase's argument the fact that in developed economies characterized by lower transaction costs, we find many growing firms, which implies that the firm size increases under conditions of higher and not lower transaction costs? According to Coase, the firm substitutes for the market when transaction costs are high; therefore, the existence of many growing firms should imply a higher, not a lower, transaction cost economy. We thus have conflicting implications of transaction costs on the firm size: Coase argues that high transaction costs produce larger firms, while NIE argues that high transaction costs will result in smaller firms. Both views, however, come to the same conclusion regarding the impact of transaction costs on economic development: namely, higher transaction costs are barriers to development.¹²

The contradiction highlights the fact that Coase's theory of the firm is not so much concerned about economic development, as it remains loyal to marginal analysis and the allocation of resources framework. Coase's theory of the firm, in which the firm exists to substitute for positive transaction costs activities in existing markets, logically implies that there need be no firms if there are no transaction costs. This gives the incorrect message that firms may not be so important, compared to the market. On the contrary, I have argued that firms can and do make an important contribution to the prosperity of a capitalist economy, through cultivating new markets by internalizing prohibitive transaction costs activities in new frontier markets.

Demsetz (2008, Chapter 8) has recently joined the debate with an interesting point as regards the size of the firm and economic development under positive transaction costs. Basically, he argues that if a court's decision and the accompanying costs necessarily incurred when internalizing externalities are taken into account, a firm is not any more efficient than the price or market system in internalizing externalities. His reason for the existence of the firm is that the firm arises to take advantage of economic gains from specialization in production, rather than engaging in both consumption and production, that is, self-production by the consumer. From this perspective, he goes on to argue that the producer-firm expands as the transaction costs reduce, because lower transaction costs will increase the product market activities, and vice versa. This view poses a challenge to the transaction costs argument for the existence of the firm. Coase's argument for the positive relationship of transaction costs and firm size can then be applicable only to the case of vertical integration of factor markets. Accordingly, Coase's theory of the firm is reduced simply to the theory of vertical integration of factor markets.

Here, Demsetz's producer-firm will face two opposing forces in relation

to its size under high transaction costs: namely, a positive effect by vertical integration, and a negative effect from decreased product market activities, and vice versa. Hence, the implications for the size of the firm and for economic development, supposedly arising from lower transaction costs, is therefore indeterminate since the relative strength of the size-reducing effect of vertical disintegration and the size-increasing effect of increased product market activities is unknown. This is not discussed by Demsetz, who like Coase seems little concerned about the role of the firm in economic development. However, it is interesting that he sees the theory of firm in terms of distinguishing product and factor markets, as in Jwa (2002b). That is, the firm cannot and will not internalize its own product market while it can internalize the factor markets by vertical integration.

6.4 THE FIRM AS DESTROYER OF SPONTANEOUS MARKET ORDER OR CAPITALIST ECONOMY?

The market-centric neoclassical economics view, and in particular the Hayekian theory of market order, does not pay due attention to the role of organizations, and specifically the corporate firm. The perfect-competition model employs the concept of the firm only as a producer-supplier in the context of the market exchange model, and the distinctive features of the firm as an organization are ignored. Furthermore, Fredrick von Hayek hardly discussed 'organizations' in his important argument favouring the natural order, the *cosmos*, over the artificial order, the *taxis*. He interprets organizations as belonging to the *taxis*, as an artificial, man-made order just like totalitarianism or socialism, which is distinct to the spontaneous market order of the *cosmos*. Of course, his organization includes corporations as well as the government. While Hayek correctly views the spontaneous market order consisting of individuals and organizations, he also deplores the tendency that the spirit of the 'great free society'⁵ has gradually been eroded by the influence of organizational thinking, such as the culture of tribal societies which lead to a social atmosphere favourable towards socialism and the totalitarian society. He also warns about the dangers of large organizations increasingly dominating the free society. As more and more people belong to large organizations as members, so they become accustomed and subordinate to the organizational thinking and cultures required by the vertical command-and-control system of the organization, and this tends to erode the spirit of a free society. The dominance of large-scale organizations such as the modern corporations is seen as a great threat to freedom, with the natural spontaneous market order dominated by the artificial organizational order.¹³

While Hayekian abhorrence of large-scale organizations is understandable from the perspective of countering socialism and the totalitarianism which prevailed during his time, it seems that his argument is overly one-sided as it is quick to ignore the role of modern corporations as market expanders, which would accord with the spontaneous market order's important role in the great free society. Be that as it may, it is interesting to read how Hayek, who tried his whole life to defend the capitalist market system from socialist aggression, ended up with a gloomy prognosis for the corporate-led capitalist economy.

Furthermore, Schumpeter, whom I have referred to several times, praised entrepreneurship most highly as the key innovator for creative destruction in the capitalist economy, but also warned of the demise of the capitalist economy because of the growth of the corporations. He argued that monopolization and economic dominance by large corporations, and the resulting hostility towards the capitalist system by intellectuals in society, will eventually pave the way for socialism, which he foresaw would replace capitalism. This transformation, he argued, would take place by nationalizing large corporations peacefully through a democratic process by the social democratic party, aided by discontented intellectuals, rather than by the violent labour revolutions of the Soviet era. He believed that capitalism would destroy itself by undermining its own political base by its own efficient, creative destruction. Schumpeter's thoughts are a product of his time, when non-competitive market behaviour as well as some politically induced misbehaviours by the then rapidly growing large corporations dominated socio-political life, and the ideas of socialism were popularly received by many intellectuals. However, he seems to have missed an important aspect of economic development, that economic development cannot emerge and cannot be sustainable without corporate organizations; while he rightly recognizes the nature of development as occurring in discrete jumps, as the capitalist economy progresses mainly by means of the growth and transformation of corporations through creative destruction.¹⁴

6.5 HOW TO CONTAIN THE INCENTIVE TO ABUSE WITHOUT KILLING INCENTIVES TO GROW

It seems to be the case that not only great economists such as Hayek and Schumpeter, but also many neoclassical economists, intellectuals and the general public, have all very often in one way or another been worrying about the potential side-effects of economic power being concentrated to large corporations in the process of economic development, sometimes

in the form of conglomeration. In this regard, we can find very insightful arguments made by Demsetz (1974) and Alchian and Allen (1977). They argue that monopoly results from either government protection or efficiency and the same applies naturally to conglomeration. Their point is that monopoly arising from efficiency should not be a cause for alarm insofar as the market is fully open to the potential entrants, while government-protected monopoly should always be avoided. I have been arguing all along that economic development is all about the matter of incentives and motivations to grow and develop. From this perspective, care should be taken not to confuse ability with incentives to abuse economic power (Alchian and Allen, 1977). Public policy should refrain from trying to contain the apparent threat of economic power concentration to conglomerations in ways that destroy incentives for growth. The threat of market power can be effectively tackled by the existence of stronger competitive pressure by potential as well as actual rivals; unless, of course, the government erects a protective barrier for the incumbents under political considerations.

As a misguided counter-example to this perspective, it is interesting to see that Korea's corporate policy since the mid-1980s has been to kill the very incentives to grow: firstly, by regulating conglomerations' or *chaebols'* investment activities for expansion in the name of deconcentrating their economic power; and secondly, at the same time, by discouraging the growth incentives of small and medium-sized enterprises (SMEs), as the SME support policy for three decades has been to reverse-discriminate the growing, better-performing firms with the 1/n equal supportive system. The former regulation has in fact created many domestic monopolies by pre-empting even the investment for the mutual entries into other business areas. As discussed in Chapter 5, it turns out that the Korean economy has been losing its growth dynamism ever since the late 1980s, in parallel with the growth-incentive-killing corporate policy regime. Bringing more competition into the conglomerates sector by deregulating their investment activities, even for mutual entry and opening the domestic market widely to foreign competitors, and at the same time by adopting a new SME promotion policy regime which supports the growing firms rather than non-growing ones and helps them to grow into large corporations to become the competitive pressure to the incumbent conglomerates, will be seen as the best alternative to revive the incentives for growth as well as to contain the incentive to abuse.¹⁵

NOTES

1. See Coase (1937).
2. During the early part of the Industrial Revolution, the burgeoning offspring of companies without concrete legal underpinnings were responsible for many economic and social problems, including fraud and bubbles in the financial market. After some efforts to provide a legal basis for companies, the Joint-Stock Companies Act in 1844 and, finely, the Companies Act in 1862 were passed in the British Parliament, in almost same form as we have today (see Micklethwait and Wooldridge, 2003 for details).
3. Note that the *Wealth of Nations* was published in 1776 before the corporate firm became widespread, and Adam Smith mainly referred to the small cottage industries in his *Wealth of Nations*. One could argue that the economy that the *Wealth of Nations* addresses was in fact an agrarian economy, and not the modern capitalist economy as we know it today.
4. Here, I refer to terms of complexity science, as in Chapter 2, to imply that a modern corporation is a complex phenomenon which creates synergies through the non-linear interactions among constituent capital, labour and technology, but also with other corporations in the economy, which in turn can help to create a new higher-order system for itself as well as the whole complex economy, and thereby a more developed economy emerges.
5. Adam Smith's hostility towards the large corporations is somewhat subjective and one-sided.
6. Chandler (1977) noted the importance of the corporation in the capitalist economy by saying that the 'visible hand' of corporate management had replaced Adam Smith's 'invisible hand' of the market in the capitalist economy.
7. Simon (1991) argued that the 'organizational economy' rather than the 'market economy' may be a more appropriate term to describe the capitalist economy.
8. Coase (1937), for example, refers to 'substitution at the margin' (ibid., pp. 386-7), and also writes that, 'Within a firm, these market transactions are eliminated and in place of the complicated market structure with exchange transactions is substituted the entrepreneur-coordinator, which directs production ... Of course, the degree to which the price mechanism is superseded varies greatly ... As is evident, the amount of "vertical" integration, involving as it does the supersession of the price mechanism, varies greatly from industry to industry and from firm to firm ... It can, we think, be assumed that the distinguishing mark of the firm is the supersession of the price mechanism' (ibid., pp. 388-9). He also notes that, 'A firm becomes larger as additional transactions (which could be exchange transactions coordinated through the price mechanism) are organized by the entrepreneur and becomes smaller as he abandons the organization of such transactions' (ibid., p. 393).
9. Coase (1937, p. 396).
10. See Jwa (2002b).
11. 'Firms come into existence to take advantage of profitable opportunities, which will be defined by the existing set of constraints. With insecure property rights, poorly enforced laws, barriers to entry, and monopolistic restrictions, the profit-maximizing firms will tend to be small scale. The most profitable businesses may be in trade, redistributive activities, or the black market. Large firms with substantial fixed capital will exist only under the umbrella of government protection with subsidies, tariff protection, and pay-offs to the polity - a mixture hardly conducive to productive efficiency' (North, 1990, p. 67). This implies that only the small-scale but not the large-scale firms can survive in the high transaction costs under the situation of insecure property rights, poorly enforced laws, barriers to entry, and monopolistic restrictions*.
12. Different strands of transaction costs economics are not very clear on the impact of transaction costs on firm size, although there seems to be some consensus of the negative impact of high transaction costs on development.
13. See Hayek (1982, pp. 35-52 of Vol. 1, and pp. 134-5 of Vol. 2).

14. See Schumpeter (1942) for his view on the prospect of the demise of the capitalist economy. Also see Henrekson and Jakobsson (2001) for the verification of the Schumpeterian hypothesis by application to the Swedish economy.
15. See Jwa (2002a, 2002b) and Jwa and Lee (2004) for the same arguments.

7. A General Theory of Economic Development

7.1 FACT-BASED APPROACH TO THEORY

I have thus far discussed the peculiarities of economic development and the reasons why existing economic theories and policy suggestions are unable to handle adequately such complexities of the economic development process. I have also reviewed in some detail the actual development experiences of the extended Western development as well as the condensed experience of Northeast Asian development, not from existing dogmatic perspectives but from an objective position determining the signature features of what their actual experiences were. I now turn to build a General Theory of Economic Development by incorporating all of what has been discussed so far. The strategy of this book has been to build a new theory by starting without any dogmatic biases or ideologies, but to truly read the real facts of the developmental process, as highlighted through the previous chapters, to create a coherent 'fact-based' theory of economic development.

I think various actual development experiences imply that, regarding the role of different players in development, differences in actual experiences are merely a matter of degree and not substance. For example, while the debate on markets versus governments or corporate firms has usually been conducted as if it were an 'all or nothing' dispute, it is quite obvious that the successful economic development experiences imply that all of these have played an essential part in the development process, with each contributing differently depending on the specific situation. This implies that the theory, if it is to be a general theory, should seek to identify the commonality that is indispensable for successful development. In this regard, it can be argued that the general theory should have answers to the most pressing questions, such as what the common features of successful development are, and what the roles of the instrumental players are. In short: what is the key to economic development?

From this perspective, this chapter begins by identifying the main features of economic development as the emergence of a complex economy. Then I scrutinize the functions of the market, to reveal its merits and

demerits as they relate to economic development, from which the basic principle of economic development will be derived. Based on the discussion of the function of the market, I discuss the role of the corporate firm and then the role of government for economic development. Finally, the theory developed thereby is applied to explain the relationship between politics and economic development, becoming a true General Theory of Economic Development that incorporates the roles of markets, corporations and government, as well as politics. The details of the political economy aspect of economic development will be taken up more rigorously in the following chapter.

In terms of methodologies adopted, this chapter takes the liberty, as before, to freely borrow from the complexity view of economic development, the New Institutional Economics perspective and, of course, mainstream economics when required. But overall the use of any mathematical modelling is avoided to help make the arguments easily understandable.

7.2 MARKETS AS ECONOMIC DISCRIMINATORS

7.2.1 Rediscovering the Function of Markets

To build a General Theory of Economic Development, it seems best to begin by rethinking the function of the market. Markets, as many of us learn from the perfectly competitive market model, allocate resources most efficiently by way of establishing equilibrium with an infinite number of equal and identical agents under perfect information. Economic agents in this equilibrium are equal in every respect and thus equally satisfied with the equilibrium outcome, where nuisances like economic inequality do not arise. The issue I have with this atomistic competition model is that there is no room for the rivalry to motivate people for economic excellence and to work towards bettering themselves jointly with others as well as independently, since mechanisms of competitive rivalry as well as mutually beneficial cooperative interactions among agents are assumed away. It is ironic that such a rivalry mechanism is completely absent in the so-called 'competitive' model.¹ Furthermore, because the competitive market assumes away any mutual interactions among the economically different agents, it cannot serve as a platform for economic motivation and therefore development.² Such a model is an allocation model, not a developmental model.

It is important to realize that markets in the real world discriminate between economic agents according to their economic achievements, and direct resources and wealth to the successful agents. In other words, the market always helps those who help themselves and deliver better market

outcomes. Looking at the market through the lens of the players rather than the playground, it is easy to see that everybody tries to pick the best partners and vote for them with their purchasing power. The consumers pick the best suppliers, the bankers the best successful moneymakers, while depositors and investors pick the best bankers, the financial investors pick successful companies, while companies employ the best workers, and the workers themselves look for the most suitable and most prosperous companies to work for. We all collectively act as if we are the God who 'helps those who help themselves', and thereby motivate players to arise as self-helping entities under the spirit of competitive rivalry for economic excellence.³

In this way, markets intrinsically discriminate among economic agents and motivate them to help themselves in order to seek their own economic gains and progress. This economic discrimination function is in fact the essential role of markets that makes them an important institution for economic development. This is a good place to define 'economic discrimination' formally, as an action of treating economic differences differently, or treating the better economic performers favourably. In this sense, the market can also be viewed as a mechanism picking winners over losers, and therefore exercising industrial policy every day, from which follows the concept of the market-led industrial policy, in contrast to the government-led industrial policy.

From this perspective, any mechanism strengthening the market's discrimination function and thereby providing motivation for economic excellence by acknowledging differences in economic outcomes will promote economic development. Conversely, any mechanism devoid of the function of economic discrimination and motivation cannot be market-friendly or development-friendly.

Alchian and Demsetz (1977 [1972]) view the market as well as the firm as organizations to meter input productivity and rewards; where 'to meter' is defined as 'to measure and also to apportion',⁴ and has a similar meaning of 'to discriminate', defined as treating differences differently, or 'helping those who help themselves'.⁵ Alchian and Demsetz write that:

The economic organization through which input owners cooperate will make better use of their comparative advantages to the extent that it facilitates the payments of rewards in accordance with productivity. If rewards were random, and without regard to productive effort, no incentive to productive effort would be provided by the organization; and if rewards were negatively correlated with productivity the organization would be subject to sabotage. Two key demands are placed on an economic organization – metering input productivity and metering rewards. Metering problems sometimes can be solved effectively through the exchange of products across competitive markets, because

in many situations markets yield a high correlation between rewards and productivity ... This method of organizing economic activity [market] meters the output directly, reveals the marginal product and apportions the rewards to resource owners in accord with that direct measurement of their outputs. The success of this decentralized, market exchange in promoting productive specialization requires that changes in market rewards fall on those responsible for changes in output.⁶

Furthermore, they argue that while textbook economics assumes that marginal productivity determines the reward:

as if productivity automatically created its reward [through the market, assuming zero information costs] ... the direction of causation is the reverse - the specific system of rewarding which is relied upon stimulates a particular productivity response. If the economic organization meters poorly, with rewards and productivity only loosely correlated, then productivity will be smaller; but if the economic organization meters well productivity will be greater.⁷

While searching for a reason for the existence of the firm, they fully understand the importance of matching performances and rewards to motivate better performance in the market as well as in the organization, which is exactly the point I am making in the proposition about economic discrimination which identifies differential reward as the key towards improvement.

The neoclassical textbooks that recognize the role of markets, such as Smith's invisible hand, as making everybody better off, and Hayekian spontaneous order as a discovery procedure, have to incorporate a discrimination function in order to realize the efficient resource allocation that those traditional functions intend to achieve. In this sense, the discrimination function of the market is more fundamental than the resource allocation functions of the invisible hand or spontaneous order. However, this discrimination function entails the most important additional function for economic development, which is motivation for economic excellence, and thereby helps interpret the market as a developmental mechanism beyond its mere allocation function as highlighted by the Smithian and Hayekian perspectives. In fact, even competition itself perhaps the most important concept in mainstream neoclassical economics, is not naturally intrinsic to any market, but only if viewed from the perspective that markets specifically perform a discrimination function. The conventional thinking automatically identifying the market as the arena of competition has created an unintended ignorance of the importance of the dynamic process of the market's discrimination and motivation function. Therefore, if the market is devoid of the discrimination and motivation functions, it cannot be a mechanism for competitive rivalry

and, furthermore, economic development. Again, any institutions interacting with markets, if devoid of such functions, can be neither market-friendly nor development-friendly.

Seen from this perspective, the private property rights system and the provision of economic freedom, in fact, turn out to be very important mechanisms for amplifying economic differences and inequalities, and as a result motivating every economic agent to compete for better material wealth. This has been discussed in the previous chapters. And that is why those institutions should be regarded as good instruments for economic development. It follows, therefore, that if the naturally arising economic inequalities as a result of market competition are artificially restrained by egalitarian policies, then this could render an inequality-generating and motivating market mechanism ineffective, thereby working against economic development and leading to economic stagnation which, if sufficiently severe, as in the socialist regime, could eventually cause economic collapse. There are many examples that show how egalitarian policies demotivate people and encourage moral hazard behaviour. This can be seen especially in the socialist systems, social democratic systems and welfare states. In this regard, a capitalist economy with unfettered private property rights and economic freedom may have better chances to grow. And this may at least partly explain why since the nineteenth century the world economy has grown mainly under the form of the capitalist market economy. However, this cannot be the end of the story, since this explanation with markets alone as drivers of economic development cannot persuasively be applied to the condensed development cases of Japan, Korea, China and others, as discussed in Chapter 5. Furthermore, the explanatory power of markets with an intact private property rights system and economic freedom seems to fall somewhat short of a full explanation of economic development experiences. For one, it may be argued that the market economy cum specialization and exchange system has existed for at least the last 15000 years, ever since the hunter-gatherers. And for a much longer period of 25 million years, humankind enjoyed a productive economic life engaged in making productive instruments and improving productivity. However, except for the last 200 years, markets failed to account for most of the economic progress of humankind as we know today.⁸ This demonstrates vividly how weak market forces really are, and how long we may have to wait for markets to bring about sustainable economic development, if at all. The question here is, 'Where were market forces when humans experienced economic stagnation in the Malthusian trap?' In this sense also, it seems that markets may have failed in economically discriminating and motivating people to promptly bring about economic development. Why does it seem to be the case?

7.2.2 Discrimination Failure of Markets

One explanation for the question raised above seems to reside in the fact that the economic system is a complex, adaptive, open disequilibrium system subject to the evolutionary process.⁹ Recall that I have interpreted the market as a collection of economic discriminators which all search for the best partners with which they can best interact and share as well as create synergy. Thus, in this way, the capitalist economy becomes transformed into an intertwined network economy in which strategic alliances or cooperative actions become even more important than atomistic competition. This network capitalist economy is in fact what I referred to as an open, complex system subject to the various features of complexity phenomena such as non-linear interaction leading to emergent behaviour, as already discussed in Chapter 2. The developmental process should be interpreted as a complex phenomenon in which, by the synergistic effects created through the non-linear interactions among market participants, a high-order economy emerges from a low-order economy. Development is, in fact, a cultural evolutionary process in which masses of successful agents are systematically created through the evolutionary process of selective amplification or replication of others' success know-how embodied in the developmental gene or meme, the whole process of which, I interpret, is initiated by the market's discrimination function. As already mentioned, traditional allocation economics seems to have missed this point, as it is concerned mainly with increasing production quantities by efficiently real-locating the given resources. Development economics should be concerned with how to transform the economy from a coach economy to a spaceship economy, if you like.

While the important feature of the development process is the creation of synergies through interactions among members of the economy, note however that such an interactive process tends to be necessarily subject to free replication of, or free-riding on, others' success know-how or the developmental gene or meme.¹⁰ Learning freely from, or free-riding on, others is an important aspect of human life. We live our lives by freely learning about how to live and succeed, albeit to varying degrees, from our parents and siblings, and then from good (and bad) peers, colleagues, elders, teachers, great thinkers in history, inventors and innovators, successful businessmen, and so on, to name only a few. Having good or better neighbours to freely replicate increases one's chances for improvement, but the cultural evolution of good ideas or memes is inevitably subject to free replication from better neighbours, what I have referred to as free-riding.¹¹

Markets, as already mentioned, cannot handle well the free-riding problems of the kind I have described, especially if faced with high

transaction costs. Contrary to the neoclassical frictionless economics, transaction costs exist in real markets because agents engage in a consensus-building negotiation process regarding the terms of trade, with those exhibiting prohibitively high transaction cost activities being driven out of the market. The point is that open market exchange of success know-how and synergy is almost impossible, because their nature as a commodity for exchange is too complicated or elusive to be transparently identified at reasonably low transaction costs, and therefore they tend to remain as free goods. As a result, economic leaders that serve as sources of know-how of success or synergies or memes therefore tend to disappear from the market; this is also partly the reason why true innovations and innovators have been rather rare in history.¹² In short, markets on their own are not very good at reaching the critical mass needed to create economically successful role models to lead the transformation process. This I call market failure of economic discrimination and motivation; a new kind of market failure differentiated from the traditional resource allocation problem.¹³

In the same vein, the introduction of a secure property rights system cum promotion of economic freedom, although useful in amplifying the market's discrimination function, will also nonetheless be imperfect, and somewhat unsatisfactory and slow. No property rights system is perfect enough to solve the free-riding problem of success know-how and synergies. As mentioned above, it is prohibitively costly to fully assign and enforce property rights for success know-how. And this is perhaps the reason why development is a rare phenomenon. An economy may itself be trapped in developmental failure despite the spread of the market system. Here, developmental failure due to market discrimination failure is synonymous with emergence failure due to cultural evolutionary failure or synergy market failure, which was discussed in Chapter 2.

Is there a solution to this kind of developmental failure problem? Yes; and this leads to rediscovering the role of organizations. More specifically, I argue that organizations, such as firms as well as the government, can help to solve the market's discrimination failure by exercising their discrimination function. While the reasons for their existence are usually assumed to be different in the literature, with firms seeking private profit and the government acting on behalf of public interest, I will show how both perform the useful role of an economically motivational discriminator for economic development, because both share the essential features of an organization, which are different from those of the market. To be more precise, organizations are characterized by a command-and-control mechanism for internal resource allocation and thereby can save on information and transaction costs relative to the market.

7.3 CORPORATE FIRMS AS INSTRUMENTS EXPANDING THE EXTENT OF THE MARKET

I have argued in the previous chapter that economists have largely ignored the firm in identifying potential solution for market failure. This is because the perfect information modds do not treat transactions or information costs explicitly, thereby remaining a kind of institution-free economics, and hence failing to appreciate the importance of private organizations in economic development. In hindsight, in the neoclassical perfect-information abstraction, even the concept of market failure does not seem to fit well with the theory because such failure can only occur in the real world of imperfect information and positive transaction costs. In this sense, I suggest that the firm as an organization is a natural solution to market failure because it can avoid or save on transaction or information costs in the real world. This observation goes beyond Coase (1937), who sees the firm merely as substituting for markets with high transaction costs. In other words, the corporate firm can avoid or minimize transaction and information costs, and therefore, is an effective solution to the market failure problem.¹⁴

7.3.1 Twin Function Theory of the Firm

The corporate firm as an organization has important functions which can be accessed on two levels. On one level, the firm can avoid or save on transaction costs in comparison with the market because its internal resource allocation is based on a command-and-control mechanism, and therefore the consensus-building process required for market transactions can be alleviated or greatly simplified within itself.¹⁵ At the same time, on another level, the corporate firm can discriminate between internal members and behaviours more efficiently than the market, because it can save on information costs incurred in monitoring and evaluating performance by utilizing various internal management mechanisms not available in markets. Therefore, transactions of success know-how or synergy, which as I have argued are subject to the free-riding problem due to high transaction costs, can be easily internalized by the corporate firm, which at the same time can keep both benefactors (synergy creators) and beneficiaries (free-riders) as a team within one organization, monitoring and discriminating among them more efficiently than the market.¹⁶ By saving information costs through various command-and-control mechanisms, the corporate firm differs from markets.¹⁷

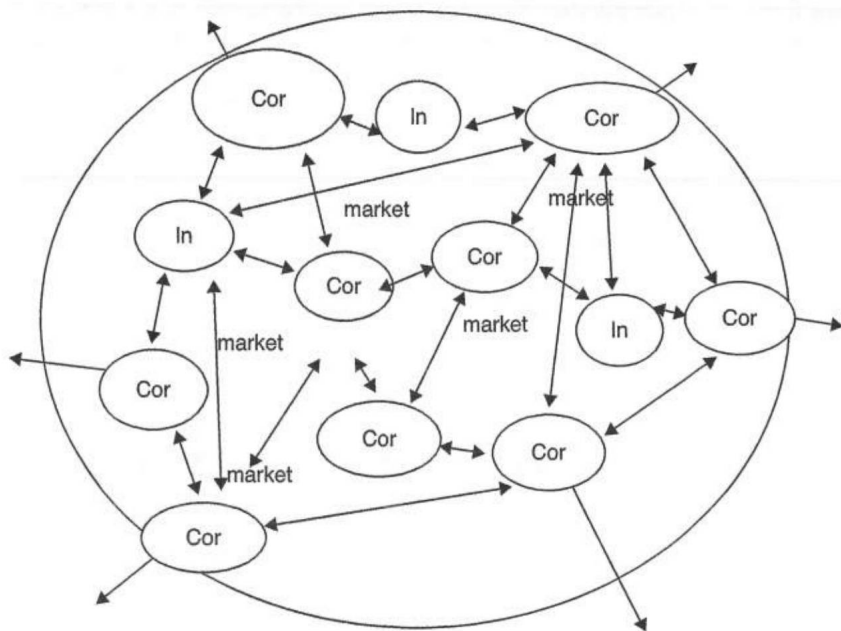
Thus, on the one hand, the corporate firm arises as a transaction costs saver to deal with the free-riding problem in a positive transaction costs

world. On the other hand, the firm arises to economically discriminate between members in the production team, thereby accurately matching performance and rewards, and motivating them to higher performance in a more effective and efficient manner than the real open markets in a non-zero information cost world would do. In this latter case, the corporate firm is an organization that effectively performs the discrimination and motivation function internally, and the corporation's success in fact depends critically on how well this function is performed, since motivation is key to the success of any business organization. Put differently, the corporate firm is an efficient economic discriminator of the internal members of the production team in the imperfect-information world.¹⁸

7.3.2 Corporate Economy

Following the above logic as it relates to the existence of the corporate firm, by creating new economic activities which could never have appeared in the market due to high transaction or informational costs, if left only to the market, the corporate firm as an organization can in fact create new markets. Therefore, the firm can play a key role in the developmental process by solving the market discrimination failure and thereby helping to increase the extent of the market. In this sense, the corporate firm, especially the joint-stock and limited liability company, becomes a very strong, large-scale organization that performs an important developmental function. Hence, one may argue that the capitalist economy is in fact a 'corporate economy' rather than a 'market economy', because the market alone does not perform well in transforming the mail coach economy to the railway or spaceship economy without help of the large-scale corporations, which have become the dominant players in the modern capitalist economy as an emergent form of the classical capitalist firm. Simply put, it may further be argued that economic development is led by the growth of corporations.

Figure 7.1 describes the configuration of the corporate economy based on Simon's view in which the market is the transaction networks connecting various types of firms, most importantly corporations and individual agents in the economy, in which the corporations are the cultivator of the market network for their own benefits, thereby expanding the extent of the market network.¹⁹ The market as a whole discriminates among corporations as well as individual agents and thereby motivates each to surpass the existing boundary of the market network and create new markets. Corporations also discriminate members of the organization motivating them to create synergies help expand the corporation itself as well as the overall economy. In sum, corporations are the locomotive of cultivating



Note: Cor = corporation; In = individual.

Figure 7.1 Configuration of corporate economy cultivating and expanding the market

new as well as existing markets and amplifying the emergence of economic development.

The Appendix at the end of this book provides a general framework for the 'corporate economy' based on a 'corporate production function'. I provide empirical evidence demonstrating that the capitalist economy is indeed a corporate-led growth economy in which per capita income growth is positively associated with the corporate growth. Moreover, I find also that inequality measured by the Gini coefficient actually drops with corporate growth. The strong evidence for corporate-led inclusive and shared growth lends firm support to the General Theory of Economic Development formalized below.

However, while corporate firms play such an important role in the development process, successful corporations, in their turn, are also destined to become 'losers' in the cultural evolutionary game as their success know-how is exposed to free-riding by followers, thereby becoming a kind of free good. It can be observed that great corporations do not easily sustain themselves for long in the market, and most eventually disappear. Success

is not everlasting. Note here that the sources of synergy, success know-how or the developmental gene are embodied in economic agents - individuals as well as corporations - that have proved to be successful in the market. The flow of such successful economic entities should be able to sustain itself if the economy continues to develop. However, the process can cease, and those synergy creators could eventually disappear from the market due to pressure from the free-riding problem, even though it is necessary to nurture them for the sake of development. I will argue in the next section that the government can help to resolve this dilemma.

7.4 GOVERNMENT-LED ECONOMIC DISCRIMINATION

7.4.1 Role of Government in Economic Development

Coming back to the dilemma that while the corporate firms exist to substitute for the market's failure of economic discrimination, assuming the role of an engine for the emergence of development, they themselves become subject to free-riding by fellow corporations, domestically as well as internationally. As I have mentioned already, it is never easy for private economic leaders to maintain their leading position indefinitely. In this sense one can again speak of a kind of economic discrimination failure of markets with respect to the corporations creating success know-how (synergy).

Here, the government as an essential governance organization can act in the last resort to help solve the market's discrimination failure.²⁰ In the context of the national economy as a whole, the government is the ultimate, most inclusive organization which in principle can internalize any external effects within the domestic national economy, according to exactly the same logic applied to the corporate firm in the context of the domestic private economy. However, in the context of the global economy, even governments cannot avoid similar market failures stemming from international competition and the free replication of other nations' success know-how, unless an effective global government offers a final solution.

Any leader's position is usually difficult to defend for long. Success is never everlasting, because of the free-riding problem in the sense that leaders are themselves exploited. Leading corporations are soon caught up with by competitors that free-ride on them. History has shown that civilizations as well as economically advanced nations do not maintain their leading position forever. The West caught up with China through the Industrial Revolution by free-riding on the then developed Chinese

civilization. Britain pioneered the Industrial Revolution by free-riding on its then advanced neighbours such as the Netherlands. The United States (US) and Germany caught up with Britain by free-riding on British know-how of the Industrial Revolution. Japan rose by free-riding on the West, Korea on Japan as well as the US, and the Chinese resurgence free-rode on Japanese and Korean know-how. Even companies do this. US companies caught up with British companies during the twentieth century. Japanese manufacturing companies benefited from US companies in 1970s and 1980s, Korean manufacturing companies from Japanese companies (Samsung caught up with its mentor, Sony), Chinese companies are catching up with Korean and Japanese companies, and so on, all by free-riding on the front-runners and mentors. In general, a company, an economy or civilization can rise if it successfully free-rides upon or freely replicates leaders, by adopting the management strategy or discriminatory economic policy of helping those people and companies who help themselves, thereby motivating them to catch up with their competitors.

The point is that the government's developmental policy should be rediscovered as an economic discrimination and motivation mechanism which reinforces the market's discriminatory function, as successfully demonstrated in the condensed development cases of Japan, Korea and China. Government-led discriminatory policy is critical when there is market failure in fully rewarding successful players, individuals as well as corporations, in the evolutionary developmental contest. Good policy is when government helps those economic agents that help themselves, based on their market performance, thereby supplementing and reinforcing the market's discrimination and motivation function. Government policy should avoid egalitarianism or intervening against market outcomes, if it intends to help develop the economy. This is the key point regarding the role of the government in economic development.

7.4.2 Implementation of Industrial Policy

What implications can be drawn for industrial policy, following this new interpretation of the roles of the market, the private corporation and the government in economic development? Note that the new interpretation of the market as a discrimination mechanism points to the fact that the market exercises industrial policy on a daily basis by picking the winners while letting the losers go, based on revealed *ex post* market performance.²¹ The market's industrial policy will mostly work well in the context of low transaction cost activities such as simple resource allocation; however, it fails especially in bringing forth economic development by creating new goods and services, because it cannot discriminate the market winners

sharply enough due to the high transaction costs characteristic of 'synergy transaction*' in the creation process of new goods and services.²² In fact, the market knows which the winners are, but picks them only with insufficient rewards for their true social contribution, thereby leading to developmental failure.²³ What, then, should the government industrial policy aim to accomplish in such a situation, and how? My suggestion is that, firstly, the government could select a target industry, sector or region for investment. Secondly, however, the government should be careful not to pick the winners in advance of market outcomes, but only select those market winners which are already successful in the market. Thirdly, the government should allow these market-picked winners to enter the target industry, sector or region, with supportive measures as necessary. Fourthly, periodic monitoring and evaluation of the selected firms must be fairly and transparently exercised, based on their market performances. Reselection out of the pool of incumbents and new entrants must be contingent on their market performance. This step of reselection is necessary to keep competitive rivalry high among competing firms and to root out any possibility of rent-seeking and moral hazard behaviour. Fifthly, the government should steer away from the temptation of egalitarianism by supporting all firms equally, regardless of their different performance. Sixthly, of course, there must be added the usual caveat that transparent economic institutions should be in place, in support of the whole process of industrial policy, so as to avoid various unnecessary side-effects such as rent-seeking and moral hazard behaviour on the part of selected firms as well as the bureaucrats.²⁴

This type of industrial policy does not guarantee success but will surely increase the probability of success. In particular, such an industrial policy does not invite problems such as the difficult informational requirements for selecting winners in advance of the market outcome. Note that industrial policy in Korea and other Northeast Asian countries was successful precisely because it was highly discriminatory, always helping better corporations that had better market outcomes. This aspect was most conspicuous in the Korean case. Furthermore, the policy target was actually the corporation rather than an industry. In this sense, industrial policy might be renamed as 'corporate promotion policy*' rather than 'industry promotion policy', for the following reasons. Firstly, an industry is not an economic agent that responds to institutional incentive mechanisms, but simply a collection of firms, an entity created just for analytical convenience in order to derive an industry supply curve for the market equilibrium, for example; therefore it is not an appropriate policy object. And secondly, as already argued, the corporate firm is instrumental in helping solve the problem of market discrimination failure only insufficiently

and to a limited extent, and it is therefore necessary to have an additional entity, which is the government, to help correct developmental failure. Here, the corrective corporate promotion policy by the government turns out to be the necessary instrument for the development of a corporate economy

In this regard, it should not be surprising to find that successful industrial policy in Korea, Japan and China promoted corporations that in turn helped to expand the market. Discriminatory corporate promotion industrial policy can help to solve developmental failures of both the market and the corporation simultaneously, thereby amplify the economic developmental process. It should now be clear why economies that are successful in promoting the growth of corporations will grow faster, and why the capitalist economy should be called a 'corporate economy'. This view is diametrically opposite to the traditional industrial policy argument that the government should intervene against, or differently from, what markets dictate and should target 'infant industry'; and also different from the so-called pro-market argument that the government should avoid intervening into the market and target general functions such as research and development (R&D), rather than a specific corporation or industry.

The traditional industrial policy paradigm tends to lend support to (infant) industry. However, the mainstream paradigm is that support for a specific industry goes against the principle of market allocation and tends to distort the market outcome, and therefore the government should support the general functions of the economy such as R&D instead of targeting individual industries or firms. This has become the general international rule of trade, and any industry- or firm-specific support is usually declared as unfair trade practice. A few counter-arguments can be made to this position, however. Firstly, industry and functions are not the entities that respond to different incentive systems set out by economic institutions. Industry and economic functions are not subjective entities that pursue economic gains. Rather, only corporate firms and individual agents seek economic gain and are subjective organisms that respond to incentives. Secondly, if industrial policy targets an industry following the traditional industrial policy paradigm or the functional approach of mainstream thought, then industrial policy cannot exercise its discriminatory support function because egalitarian populism favouring a $1/n$ support scheme in the name of fairness (and democracy) tends in fact to seek equality regardless of performance, and also there is in general an absence of a mechanism identifying superior market-performing agents in such paradigms. Seen from this perspective, egalitarianism is unavoidable, resulting in policy failure. Note that this has been the case in Korea's industrial policy failure since the 1980s, with the removal of the discriminatory corporate targeting

industrial policy of the earlier developmental era. Thirdly, the 'fair, level playing-field*' in international trade is idealistic and perhaps impossible, unless the economic powers of individual economies are equalized and/or the level of support for general functions are equalized over the economies. In this sense, the existing international regime remains distortive, and even worse, has been development-unfriendly, especially for the developing economies.²⁵

7.43 Theory of Government Policy

As implied already, the features of successful government policies are not confined only to industrial policy but are also generally applicable to most cases of economic policy. More specifically, the story of the losing cultural evolutionary game of economic development applies not only to corporate firms but also to individual agents; and indeed, everywhere. Successful economic policies turn out to be economically discriminatory, while failed policies are egalitarian. In other words, government economic policies can succeed only if they reinforce and thereby supplement the market's economic discrimination function; otherwise, they lead the economy towards inevitable stagnation. This may be called the 'general theory of government policy.'

This theory can also provide an answer to the question raised by Rodrik (2008,2011), as to how to implement public policies in general which have the same potential problems as industrial policy. A general answer is that economic development policy, including industrial policy, should be discriminatory, while social policy could be egalitarian by nature but is best supplemented with the differential incentive system which provides more support for a higher degree of self-help, if it is not to be demotivational. Moreover, in a democratic society, an economic empowerment policy for the needy group of people becomes a priority, while this theory implies that even the empowerment policy should be discriminatory if it is to make any real improvement to their economic situation by motivating their self-help spirit. Note, therefore, that only discriminatory public policy can be sustainable, by creating an environment that gives the recipients the incentive to grow.

Therefore, the development theory in this book does not resonate with modern macro development economics, which often argues that the government should intervene against the market discrimination function in order to secure a more economically egalitarian outcome by helping those who do not help themselves. It is important, perhaps, to stress here that I am talking of economic discrimination and not political discrimination, which for obvious social and ethical reasons is generally unacceptable.

But saying that one is in favour of political equality is not the same thing as being in favour of economic equality. In sum, development is in need of corporations as private organizations, and government as a public organization, as well as the market, all of which should assume the role of economic motivator by way of being discriminatory.

7.4.4 Politics and Political Ideologies in Economic Development

The argument for democracy before development and/or economic equality before development is very popular in the modern era. In fact, it seems that equality of economic outcomes has been elevated to the level of a kind of economic-god status, not unlike democracy which, arguably, has achieved a kind of political-god status.²⁶ That notwithstanding, most mainstream, technical economists have kept their distance from such ideological issues in their economic analysis. Furthermore, the New Institutional Economists have been relatively silent about this kind of issue, even though their framework does introduce political ideology as an important informal institution. However, concerning the choice of economic policy stance, the economics profession seem to base their position on ideological beliefs, and not very seriously on economic analysis. Economic theory has not been a good guide in integrating ideological and economic policy for economic progress. As far as the economics profession is concerned, ideological issues such as economic equality and economic freedom have become a hot potato.²⁷

As long as the economics profession sticks only to the theory of resource allocation by adopting the economics premise that economic science is merely the study of how to allocate scarce resources efficiently for some given objective,²⁸ where the market is primarily the main efficient resource allocation mechanism, they can avoid concern about politics and ideologies by arguing that economists simply use market information about means and ends, and build solutions to the question of how much of the given means are allocated to the given competing ends. Of course, it is well known that this allocation model can be applicable equally to socialist planning as well as to the capitalist market economy. Overall, economists have been enjoying an ideology-free life as technical economists. However, if one looks at the economic behaviour of individuals as well as organizations, and the institutional environment which supplies the guiding rules of the game, then it is difficult to avoid looking into the nature of the politics and ideology which make up those rules of the game, in a modern democracy where the legislative body under ideology-led party politics dominates the process of economic policy-making.²⁹ Different ideologies will influence the choice of different rules of the game, through party politics, which

in turn results in different economic behaviour and, eventually, different economic outcomes.

The relevant question then becomes, *What political ideology, democracy and political leadership are development-friendly for the better economic performance of the national economy?⁵ The new theory presented in this book in fact provides criteria for the choice of politics for better economic performance as related to the following:

1. Political ideology. The general rule for the choice of political ideology is that political ideology is development-friendly if it is economically discriminatory by allowing economic inequalities depending on economic performance; while it is development-unfriendly if it is based on economic egalitarianism that essentially seeks economic equalities, disregarding different economic performance. An important corollary is that allowing economic inequality is a precondition for development.
2. Democracy. From the same perspective, one can easily see that the exact same logic can be applicable, *mutatis mutandis*, to democratic political institutions. For democracy to be development-friendly, it should allow economic inequalities that depend on market performance. The egalitarian democracy that seeks economic equality while disregarding market performance is development-unfriendly.
3. Political leadership. Furthermore, this framework can equally be applicable, *mutatis /mutandis*, to the choice of political leadership. If the leadership embodies an ideology which cannot accept economic inequalities stemming from differences in market performance, then such leadership cannot be qualified as development-friendly, that is, an economically discriminatory leadership. A nation should have economically discriminatory leadership if it hopes for any economic progress, and such leadership should transform a democracy and even the people's ideology, if those are egalitarian, into the development-friendly, non-egalitarian type. In actuality, the importance of economically discriminatory leadership for economic progress has been proved over and over again in history.

Now, I come to the grand implication that politics, including political ideology, democratic institutions and even the political leaders, should join in the team of the 'holy trinity of economic development - corporation, government and market — by being discriminatory, helping those who help themselves if they are to contribute to economic development. However, if politics resorts to egalitarian socio-economic institutions, then the 'holy trinity⁵ of the government, corporations and markets will become helpless to harness economic progress. From this perspective, it becomes obvious

that economic development cannot proceed if there are serious economic equality constraints imposed upon the system. One is of course free to have one's own ideology or normative judgement against or in favour of economic inequality or equality, for whatever reasons, but the new theory strongly suggests that economic inequality is a precondition for development.

The new theory is related to the fourth and fifth, most outer, layers of the economic environment as shown in Figure 3.1 in Chapter 3, by treating ideology, democracy and political leadership as endogenous choice variables. The new theory inclusive of politics in its broadest sense is now able to deal with various political economy issues regarding economic development.

7.5 A GENERAL THEORY OF ECONOMIC DEVELOPMENT

7.5.1 Economic Discrimination and Holy Trinity of Economic Development

Economic discrimination is key for economic development³⁰ and it is the basis of the new General Theory of Economic Development. Discrimination is simply the act of seeing differences differently, which can be contrasted with the act of viewing different things as a common or uniform set.³¹ After acknowledging differences, discrimination involves acting on these differences for some desired result. Discrimination then involves making a judgement, or more specifically, selecting for favourable treatment those that are preferred over less-preferred alternatives. As a matter of fact, discrimination of whatever kind is part of humanity's experiences; we all have our biases and preferences. But here, we are looking at economic discrimination, where behind every economic decision, when people, organizations or even governments make choices, economic discrimination is precisely what is being practiced. If we assume society exists at various level of development, then economic discrimination is the 'ladder' that allows society to move up the levels or ranks of development by choosing excellence over mediocrity. The insight of the new General Theory of Economic Development is that, despite the differences in the exact types of institutions and details in successful development policies adopted, all of these embodied economic discrimination as an integral part of the institutional and policy framework, thereby allowing catch-up and economic development to be realized. That is, institutions and policies that embody economic discrimination increase the chances for economic

development, while those mitigating economic discrimination eventually lead to stagnation and economic regression.

Moreover, the General Theory of Economic Development integrates the Western and Eastern economic development experiences through their practice of economic discrimination, which furthermore provides a better understanding of why economies with and without strong private property rights and economic freedoms can in fact succeed. Note here that from the General Theory of Economic Development perspective, private property rights and economic freedom institutional arrangements help to amplify economic discrimination, and their importance for economic development is paramount. The new General Theory of Economic Development, centred on the economic discrimination principle, provides for a more comprehensive understanding of economic development and helps to explain further why development is possible, beyond the arguments of the various developmental paradigms discussed above (that is, the market-centric, pro-government and New Institutional Economics views discussed in Chapters 3). Moreover, the General Theory of Economic Development embodies a special warning about the rising trend of egalitarianism proliferating in modern-day democracies. In sum, the best business strategies, corporations and industries should be supported in line with the received wisdom that God helps those that help themselves (that is, economic discrimination) if there is to be any chance for economic development.

The General Theory of Economic Development is succinctly summarized in Figure 7.2, which depicts the spaces of the three institutions of economic development, consisting of the market, corporations and the government. The circles represent the economic space that each institution occupies. On their own, economic development can only remain limited. Recall, for example, that markets embody economic discrimination, as economic winners are selected constantly, but market failure greatly reduces the occurrence of economic development. Only by the economic joining of the three institutions (that is, the 'holy trinity') is economic discrimination magnified, thereby creating the great engine of economic development. Thus, here is a clear answer to the question of what kinds of institutions (organizations as well as 'rules of the game') matter for economic growth and development: institutions that embody the economic discrimination principle.³² For economic development, the government, corporations and the market must concur with the economic discrimination principle, each respecting the others to elevate successful entities and behaviour, and thereby deliver economic development. The figure highlights the central area where the three institutions of development — the government, the market and corporations — are joined under the economic discrimination

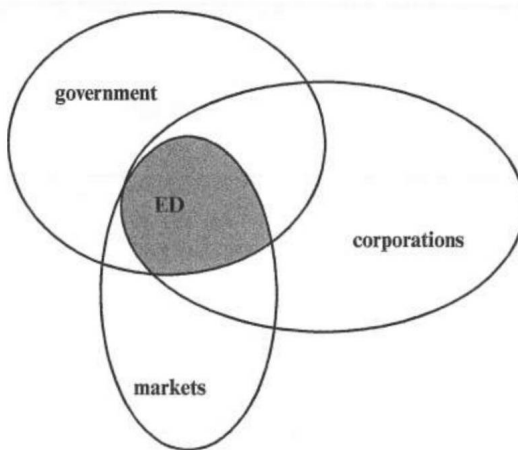


Figure 7.2 General Theory of Economic Development and economic discrimination (ED)

principle which allows its magnification and translation into economic growth and development.

Economic discrimination is a mechanism that creates competition and wealth, and it is certainly not about protecting insiders. It is a mechanism that is meant to motivate economic agents, including the government and corporations as well as individuals, to seek success, which helps to extend markets by reinvigorating dormant economies. It is true that with economic discrimination come all kinds of imbalances as well as inequality in resources and wealth. It does not guarantee an ideal scenario by any means, but at least it guarantees wealth and prosperity to some degree. The concentration of economic power by successful players is inevitable. Economic development is an uneven process. However, any attempts to diminish economic differences by mitigating economic discrimination through policy often lead to economic stagnation as incentives become distorted. This is a serious mistake as it removes the very engine of economic growth. It may even be mentioned here that by mitigating economic discrimination, egalitarianism becomes a sufficient condition for economic regression.³³ Be that as it may, I strongly warn that egalitarianism negates, and could even reverse, economic progress.

7.5.2 Origins of Economic Discrimination

The idea of economic discrimination is not completely new. Evolutionary and complexity economists can be heard speaking of differentiation,

selection and amplification under the general paradigm of the survival of the fittest, where best business practices and the corporations that embody them outlive their competitors.³⁴ Behavioural economics, pioneered by Daniel Kahneman and others, has recognized the importance of differentiated incentives for economic behavioural change.³⁵ The management guru Jack Welch has a whole chapter entitled 'Differentiation' in his best-selling book *Winning* (Welch, 2005). Society has often recognized the importance of choosing winners over losers. In Western thought, one comes across the time-honoured maxim that 'Heaven helps those who help themselves'. For example, the Parable of the Three Servants, Matthew 25 in the Bible tells us that Heaven favoured only the two servants who through their self-help effort doubled the number of bags of gold given to them for safekeeping by their master. The third servant, who kept safe but failed to increase upon the bag of gold given to him, had it taken away from him, and was thrown out. In addition, Smiles (2008 [1859]), for example, writes that:

'Heaven helps those who help themselves' is a well-tried maxim, embodying concisely the results of vast human experience. The spirit of self-help is the root of all genuine growth in the individual and, exhibited in the lives of many, it constitutes the true source of national vigour and strength. Help from without is often enfeebling in its effects, but help from within invariably invigorates. Whatever is done for men, or classes of men, to a certain extent takes away the stimulus and necessity of doing this for themselves; and where men are subjected to over-guidance and over-government, the inevitable tendency is to render them comparatively helpless.³⁶

In this quotation, it is interesting to notice the parallels between economic discrimination and self-help.

The origin of the idea of economic discrimination in Eastern thought can be traced back to the Legalist school in China, which taught that one should never fail to reward merit or let faults go unnoticed; or what is known as 'the dispensation of justice' (*f言 勸^■ m Chinese, 신상필 벌 in Korean). The dispensation of justice was adopted as the basic principle of governance in the first united Chinese Kingdom, the Chin dynasty. Even before the Legalist school, Confucius himself also implied a similar philosophy in his *Analects* by writing, '君•子和Iffi: 同, , J、 义同? J不: 科]', which can be translated as 'the great man can have harmony even with differences prevailing, while the ordinary man equalizes differences but fails to achieve harmony'.³⁷ In a sense, treating difference differently should be viewed as a just basis for development through the creation of harmony; while treating difference equally must be a source of conflict and tension and of social digression by destroying harmony.

Zuo Qiu Ming (호斤. 행), a well-known contemporary of the Great

Confucius, mentions in his *Kokugo* (國語) that 'harmonizing differences will create a new life order while equalizing differences will stop their creation'⁵ (私I월호物I, 同MO:不:■□. This idea is known as one of the most important concepts in the long history of Chinese philosophy and is even more suggestive of the complexity nature of economic discrimination □ED□ than the Confucian argument.³⁸ Be that as it may, we can see how economic discrimination is in fact the dispensation of justice by helping those who help themselves. The market intrinsically supports the dispensation of justice by helping those who help themselves, or in other words, by never failing to reward merit or letting faults go unnoticed. In this way, beyond its allocation function, the market is seen as an economic discriminator and an important engine for wealth creation.

7.5.3 Views on the Market and Development

The market-centric school views the market as a 'level playing-field*' where equilibrium is seen as a perpetual resting point. Importance is thus given to maintaining a spontaneous market order, or market-determined relative prices which are viewed as ideal and therefore requiring only a minimal role for the government or outside intervention. The idea of 'development' is discussed largely as an allocation process described in quantitative terms, that is, 10 wagons to 100 wagons, which is generated spontaneously by the market order. The market-centric view as such has very little to say about how real economic development may come about.

Karl Marx, on the other hand, viewed the market as an exploitative system led by the capitalist class. He viewed capitalist development as a seriously contradictory and violent process, essentially because of its contradictory nature in defining social relations, or more specifically, the exploitation of workers by capitalists. Marx conceptualized development under capitalism as uneven and contradictory, where the exploiting capitalist class gain a lot more from it than others, particularly the workers. The ultimate fate of capitalism according to Marxian ideology was revolution to replace capitalism by socialism, thereby achieving an equal society.

The new General Theory of Economic Development views the market as a creative or emergent system where the creators are exploited by replicators. Economic development is understood to be intrinsically uneven, in the sense that it occurs at some places and times more than others, thereby rejecting the 'equal playing-field' of market-centric thinkers. The General Theory of Economic Development turns Marx on his head by claiming that if there is indeed a contradiction, it is not in the exploitation of workers by the capitalist class, but rather in the exploitation of the synergy creators by replicators. This is because, as I have explained, the nature

of economic externalities makes it impossible to reward those synergy creators fully, and replicators are in a sense perpetual free-riders. Here the synergy creators are not necessarily workers, nor are the capitalist class always the exploiters, as Marx would have liked us to think.

Markets function as economic discriminators and are best left to perform their functions. However, I have warned that egalitarianism, which can be thought to have come about through a dangerous mix of market-centrism and socialism under the guise of social democracy, has become a prominent feature of modern governments and public sentiment. As I have mentioned, and will discuss further, incentive-lacking or incentive-neutralizing market-centrism as well as the incentive-destroying socialism all exist under the equality-seeking leadership, institutions and policies that have created the current economic woes including growth stagnation and economic polarization. Be that as it may, because markets alone are hardly sufficient to reward economic innovators, what society requires are corporations and governments working together to exercise economic discrimination, to support synergy creators to help ignite economic development for the masses.

In this regard, the General Theory of Economic Development presented in this book constitutes a new interpretation of capitalism as a creative development system led by corporations and governments together with the market, and is therefore different from the allocation system viewed by market-centric mainstream economists as well as the exploitative system viewed by Marxian socialist scholars.

7.6 APPLICATION AND IMPLICATIONS OF THE NEW THEORY

7.6.1 Alternative Explanation of Economic Development Puzzles

With the new General Theory of Economic Development, a consistent explanation for diverse economic experiences can be provided. Firstly, the reason why the economic take-off of the world economy 200 years ago required such a long gestation period, and thereafter was so slow, infrequent and uneven, is because markets with only private property rights and economic freedom, but without extra motivational institutions provided by private corporations as well as pro-development governments, were insufficient to harness relatively rapid, condensed economic transformation. After all, the evolution of economic development in the market turns out to be a losing game for star players that lead the process. Most of the now developed Western economies had active infant industry promotion

policies during their take-off period in the eighteenth and nineteenth centuries, while the new General Theory of Economic Development suggests that the underlying reason for their success is the discriminatory supportive system.³⁹

Secondly, the rapid economic transformation of the Korean 'Han River Miracle', the Japanese Meiji Restoration and the remarkable Chinese growth in the past 30 years are products of the market cum private property rights system and economic freedom, and the extra motivational institutions created by discriminatory government policies including an active corporate promotion industrial policy. Thirdly, the recent declining growth trend of the Korean economy since the late 1980s, and of the Japanese economy since 1970s, has been largely due to the change in government policy regime from economic discrimination to economic egalitarianism, which mitigated the power of the discrimination and motivation functions of the markets and corporations. The popular tide of social democracy and revised capitalism since the mid-twentieth century has had a large influence on Japan and Korea as well as other major developed and developing economies, and this has been the main cause for the widespread adoption of egalitarian economic policies, which has resulted in the sluggish performance of the G-7 economies including the Japanese and Korean economies over the last few decades, as well as many other developing economies. In sum, it turns out that economic egalitarianism is a sufficient condition for economic stagnation, while economic discrimination is a necessary condition for economic dynamism and growth.

7.6.2 Stimulating Economic Development in Developed and Underdeveloped Economies

One could ask what the main cause has been for the global economic crisis of low growth, high unemployment, high income-inequality and fiscal distress. The new General Theory of Economic Development suggests that the root cause of all these problems resides in demotivational government economic and social policies, due to an egalitarian political and economic system largely driven by a misguided egalitarian ideology that aims to even out economic differences, often by regarding the capitalist economy as a contradictory system that is the source of economic inequality, which is not much different from the socialist Marxian ideology point of view. The capitalist economy, as I have mentioned, has evolved into a networked, complex society in which we have all become dependent upon one another, often free-riding on others' success know-how. This is not a contradiction, but a fact of life, implying that everyone can develop economically, but will never become equal. That is, economic development will necessarily create

economic differences, but will also help to develop everybody. Any government involvement in the market, if it goes against the mechanism of creating economic differences, will necessarily lead to economic stagnation.

In fact, the modern electoral democracy tends to degenerate into social democracy, seeking economic equality and a welfare state. Most of the more developed economies, and even many underdeveloped economies in the post-World War II era, have adopted social democratic or egalitarian policy regimes in the name of resolving the contradiction of the capitalist economy in the hope of creating a much more equal society. Even the macroeconomic financial and fiscal policies have become distorted towards helping the underprivileged unconditionally; which, according to the new General Theory of Economic Development, is the root cause of the current problems. By demotivating the successful agents, the source of synergies, and at the same time allowing unsuccessful agents inclined towards moral hazard, social democracy tends to push the economy into an 'egalitarian trap', resulting in overall economic stagnation, unemployment and fiscal distress. Ironically, income inequality tends to increase rather than decrease, even with policies intended to narrow the gap, because the harmful effects of such egalitarian policies tend to place a disproportionately higher burden on the low-income individuals in terms of the overall jobs lost. In fact, it has been widely observed that economic policies for development tend to be increasingly degenerating into so-called social policies which refuse to treat differences differently, thereby being egalitarian and demotivational. This may be the reason why developed economies such as the G-7 are now experiencing economic stagnation. And this has also been the case for many underdeveloped economies.

For example, the 2008 subprime mortgage crisis that began in the US and is still looming large in the global economy is a result of anti-discriminatory financial support policies to low-income non-homeowners, which essentially worked against the market's discrimination function which had persisted for at least 30 years under both Republicans and Democrats, under the banner of the 'National Homeownership Strategy*' harnessed by the Community Reinvestment Act. It was followed by excessive financial deregulation, which was politically motivated, in an effort to help the underprivileged. It is the market's discrimination function that should determine who are eligible or not as potential house buyers. But if this function is nullified or distorted by government policies, the market is bound to experience a bubble and eventually a burst, or to degenerate depending on the nature of the policies.⁴⁰ The fundamental cause of the fiscal distress faced by some European Union countries and the resulting unrest in the global financial markets is also a result of the widespread adoption of egalitarian social policy that replaced discriminatory economic policy.

To motivate and revive people's self-help spirit by supplementing and reinforcing the market's discrimination function, rather than undermining its discrimination power and thereby demotivating people with exaggerated promises of populist politics, is a sure way towards reviving a stagnant developed economy, as well as igniting the development of underdeveloped economies. Some motivational mechanism seems necessary in social policy as well, so as to minimize any demotivational effects such as moral hazard, which is also a lesson that we can learn especially from the condensed economic development experiences of East Asian economies, while the modern egalitarian democracy such as social democracy continues to pose a formidable stumbling block to the road ahead.⁴¹

7.6.3 Enabling Institutions are Discriminatory Based on Performances

What institutions are enabling for the emergence of economic development? The new General Theory of Economic Development implies that economically discriminatory institutions are enabling, while egalitarian institutions are not. A market, firm or government may encourage many common people to do positive things which they could not do by themselves in isolation. And the key to generating positive externalities or synergies, the new theory implies, is economic discrimination. This implies that there is a need to be aware of myths generated by misunderstandings brought about by the egalitarian ethos. For example, in Korea, economic differences and concentrations have often been scorned in favour of a more equal and economically uniform society. And more recently such sentiments have also been strengthened by democracy. The new General Theory of Economic Development warns us that the threat posed to national economic development of such egalitarianism, which I term the 'Egalitarian trap', can act as a serious barrier to economic development. That is, political and economic egalitarianism as exemplified in social democracies tends to work against economic development, despite good intentions.⁴² Moreover, I would like to emphasize that societies' developmental ethos, which can be encapsulated in the so-called 'self-help' or 'can-do' spirit, is much more important in achieving economic development.⁴³ And it is, indeed, institutions that embody economic discrimination which nurture this developmental attitude of self-help, diligence and cooperation.

According to the new General Theory of Economic Development, the following institutions and policies are enabling for economic development: (1) the system of private property rights cum economic freedom; note that this system is the most conspicuous example of an enabling, discriminatory institution, which sows the seeds of economic inequalities required for economic take-off and development; (2) a discriminatory industrial policy

with a differential incentive system favouring the well-performing corporations; and (3) other discriminatory institutions and government policies which help those who help themselves.

In contrast, the following egalitarian institutions and policies will tend to destroy incentives and undermine economic dynamism and development: (1) institutions and policies unfavourable to high-performing economic agents, such as the regulations on growing corporations, a balanced regional development policy disfavouring growing cities, and a progressively high tax rate on the high-performers; (2) institutions and policies favourable mainly towards low-performing agents, such as a uniformly and generally provided free welfare system and uniform, non-discriminatory small and medium-sized enterprise support policies; (3) institutions and policies generally favouring strong and militant labour unions and at the same time disfavouring the corporations, thereby serving to aggravate conflict in industrial relations; and (4) other social and political egalitarian policies that work against the market's discriminatory outcomes.

What kinds of political regimes are enabling? Is democracy enabling? Not all kinds. Egalitarian democracies seeking economic equality, such as social democracy and populist democracy, are examples of political regimes that can stall development. In contrast, even a non-democratic political regime can be pro-development, insofar as it allows the private property rights cum economic freedom and discriminatory institutions and policies to function. In sum, almost all cases of successful development owe their success to enabling, discriminatory institutions and policies, while the failed cases can blame egalitarianism, as seen in Chapters 4 and 5. This will also be further discussed in Chapter 8.

7.6.4 General Implications of the new General Theory of Economic Development

I now summarize the general implications of the new General Theory of Economic Development as a way of clarifying the complex process of economic development:

1. Economic discrimination is the key to emergent behaviour or economic development of the complex economy, as it enables the non-linear interaction that helps to create synergies among the members of the economy. Here, economic discrimination means to treat economic difference differently and to favour the economic high-performers.
2. The market is an epitome of economic discrimination and motivation, but the market alone is not enough to generate economic

development, due to its discrimination failure stemming from evolutionary failure or synergy market failure. As a result, an economy almost never succeeds to emerge into a higher-order economy. The fundamental reason for only sporadic development is that we all live by free-riding 'on the shoulders of giants', but the market cannot solve this problem due to the high costs necessarily incurred by the market transactions.

3. The corporate firm, invented under the capitalist economy, is indispensable to economic development because it can help to solve the emergence failure of the economy or market failure, by internalizing the innovators as well as the free-riders within the command-and-control system of the organization and thereby acting as a solution to the otherwise huge transaction costs. The corporation often emerges into a higher-order system by adopting the economic discrimination principle in its internal management. But the successful corporations, as part and parcel of the complex economy, are destined to be subject to free-riding by fellow corporations and therefore fail to emerge en masse, resulting again in the emergence failure of the economy as a whole. However, in terms of the importance of their respective roles in the economic development process, aided by the government effort to solve the emergence failure as discussed later, the capitalist economy can be called the 'corporate economy' rather than the 'market economy'.
4. The government can help to solve all these failures by adopting economically discriminatory rules of the game, and by doing so guaranteeing full reward to the positive synergy creators, the innovators and successful corporations, thereby helping to revive economic emergence. A mass of successful corporations as well as individuals as positive synergy creators may therefore re-emerge and lead the economic development. Seen from this perspective, government industrial policy should be nothing short of being a discriminatory supportive policy to aid the best-performing corporations based on their market performance, rather than the industry per se.
5. Hence, the markets, corporations and the government constitute the 'holy trinity of economic development' when all three engage in economic discrimination, thereby creating economic imbalances that motivate all agents of the economy.
6. Politics, including political ideology, political institutions and even the political leadership, should encourage economically discriminatory institutions and policies for the sake of economic progress. Above all, the political leadership of a leader or group of leaders becomes a critical factor in determining whether economic development can

be initiated or not. Only when leaders believe in and have the guts to implement the principle of economic discrimination in national institution-building and policy-making will there be a genuine chance for development. Without such development-friendly support by leaders and politics, the 'holy trinity of economic development'⁵ — that is markets, corporations and government — will be unable to harness economic development.

7. Social as well as economic empowerment policies should be economically discriminatory in helping those who help themselves, if those policies are to be economically sustainable.
8. Economically discriminatory institutions and policies are the enabling institutions that provide the right incentive structure to society under which everybody is motivated to exert their efforts wholeheartedly.
9. Economic power concentration to the higher performers is a natural process of development. Development is a lopsided phenomenon.
10. The growth of a business firm into a large corporation is also a natural process of development.
11. Economic imbalances of regional, corporate and individual growth are also a natural phenomenon of development.
12. Economic inequality is a seed for economic progress, while economic equality will lead to economic retardation.
13. Finally, the essence of the General Theory of Economic Development can be stated as follows: (a) the 'holy trinity of economic development' — markets, government and corporations — all should exercise economic discrimination in their own respective domains under the principle that economic discrimination is a necessary condition for economic development, while economic egalitarianism is a sufficient condition for economic stagnation; and (b) politics as well should follow the principle of economic discrimination by introducing enabling institutions and policies, if there is to be any genuine hope for economic development.

7.7 CONCLUDING REMARKS

Interestingly, the new General Theory of Economic Development releases the debate on the role of market versus government from a dogmatic ideological framework, by extending the discussion into a new dimension that recognizes the important role of corporations in addition to the market and the government and, furthermore, by introducing the important role of politics into the analysis, thereby opening up a new road for developmental economics in which all three players together, under a

discriminatory political environment, should and can interact synergistically to expedite economic development by exercising economic discrimination and providing strong incentives for growth and development. This has been seen especially in the Northeast Asian condensed development experiences, in addition to the extended development experiences of the Western economies, and by reinterpreting the development process from a complexity perspective.

In my discussion, the market has been rediscovered as a discrimination and motivation mechanism for economic development beyond its traditional allocation function. Furthermore, I have argued that the market alone is not enough for rapid, condensed development, mainly because of the free replication of success know-how in the typical cultural evolutionary process of economic development. It is in this context that the useful developmental roles of the corporation and government are also rediscovered.

I have argued that the corporation can supplement the market by internalizing the free replication activities into the organization and thereby expanding the extent of the market, while the successful corporations again tend to face losing the evolutionary contest of economic development due to latecomers free-riding on them. Here, the government can expedite development by supplementing the market's discrimination and motivation functions through helping those economic agents, corporations as well as individuals, who help themselves and become successful in the market. Rather than intervening against or differently from market outcomes, as often recommended by the traditional industrial policy paradigm, rather than targeting the economic functions recommended by the mainstream paradigm, and rather than adopting egalitarian economic policies as popularized by the social democracy, successful industrial policy should be a discriminatory corporate promotion policy, supporting successful firms that achieve better market outcomes to enter the target industry, sector or region.

Finally, it has become apparent that the market cum private property rights system and economic freedom may help to provide a good environment for economic development, but they are somewhat insufficient and need to be supplemented by economic discrimination by the government and private organizations if there is to be any chance of visible economic take-off, growth and economic development. It seems that the market by itself, without the corporation and the government, cannot guarantee economic growth and development.

In general, the new theory implies that government policies should remain discriminatory by providing differential incentives based on economic performance if they are to be development-friendly; while egalitarian policies,

negating economic differences and being demotivational, become a burden on economic development. In this sense, the social policy lacking a differential incentive structure, that has been widely adopted by many countries and is now failing, is destined to be a burden unless supplemented with some discriminatory incentive mechanism to offset negative impacts on people's behaviour. Furthermore, so-called 'economic development policy' should not be implemented in an egalitarian way, as has been taking place for decades in many economies in the world.

This is precisely why politics can be a critical constraint on economic development efforts, because it is responsible for the kinds of economic institutions set in place and also strongly influences the policies through its legislative power in a modern democratic society. Politics can be a big supporter of economic development if it can help to introduce an economic policy regime that puts in place development-friendly, enabling, economically discriminating institutions and policies; or it can otherwise be a disrupter of development effort.

Now, some caveats are in order for the less developed or developing economies. Must they adopt an egalitarian policy regime, as is strongly suggested by the populist tide of anti-capitalist and pro-social democratic ideologies of the twenty-first century? The new General Theory of Economic Development suggests the latecomers should not yield to such populist suggestions. Rather, they should introduce economic discrimination principles into their economic institutions, as well as policies, and maintain them at least until they successfully catch up to the level of a developed economy, even though this policy stance will be politically difficult to follow. In addition, the new General Theory of Economic Development also implies that the World Trade Organization rule prohibiting economically discriminatory policies, such as the corporate promotion industrial policy, may need to be reconsidered, because it may work systematically against the latecomers.

As a final note on economic inequality: what can be expected from economic development? It seems inevitable that development will deliver improvements for all, but with economic inequality as well as economic power concentration, whether one likes it or not. Inequality and development are but two sides of the same coin. However, it appears that there is no necessary reason to believe that economic development in the capitalist economy intrinsically deepens economic inequalities, as alleged by some ideologies, since we are all free-riding on our own parents as well as on successful star agents, and in the same vein, the proletariat free-rides on the bourgeois, and not the other way around; we are all developing together. However, of course, it will be necessary to create economic inequalities through the economic discrimination process to catch up

or to take off from the pre-development stage, because development, by definition, means structural change from a stagnant and egalitarian economy exemplified by the agrarian and socialist economies and/or labour-intensive industry, to the modern industrial society exemplified by the economically leading people and corporations. This implication confirms the grand evolutionary principle that without mutation among the population, there cannot be any evolutionary transformation from the outset. Beyond this, the new General Theory of Economic Development does not suggest any specific direction of change in the degree of economic inequality, even if it may be inevitable to accept economic inequalities along with the process of development. If any specific patterns of inequalities appear, they could also be due to specific government interventions rather than the natural forces of economic development. Here, it may be educational to recall that during the latter half of the twentieth century, economies globally tried to create economically more equal societies by means of wealth and income redistribution policies, but ironically we have economically more unequal societies. This issue of economic inequalities and economic polarization in the capitalist economy will be further elaborated upon in Chapter 8.

NOTES

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- This criticism was made by Hayek (1948).
 2. This point was made by Beinhocker (2006). In the atomistic competition model there is no need for mutual interaction among agents or concern for the others' action, because the impacts on others from the action of any individual agent are assumed negligible by assuming infinitely many agents. Absence of mutual interaction is too critical for the model to be an economics of development from the perspective of a complexity view of the economy.
 3. It is interesting that the importance of the 'self-help' spirit and motivation for development was well expressed in the midst of the Industrial Revolution by Samuel Smiles, as early as 1859.
 - 4.
 - 5.
 - 6.
 7. Alchian and Demsetz (1977 [1972], p. 75).
 8. Jwa and Yoon (2004a).
 9. Alchian and Demsetz (1977 [1972], pp. 75-6).
Alchian and Demsetz (1977 [1972], p. 77).
See Figure 1.1 in Chapter 1.
- This section recapitulates and consolidates ideas in Chapter 2, at the risk of repetition, in order to incorporate into the new theory the peculiarities of economic development discussed.
10. Here, note that I treat synergy, success know-how and the developmental gene or meme synonymously. I think these can be only broadly defined as something useful exchanged among economic agents which help them move ahead, such as how to live a good life, how to make business successful, how to interact harmoniously with other members of society, how to innovate as well as to imitate, and so on. Be that as it may, 'synergy' should not be confined narrowly in a technical sense, such as technologically innovative ideas, for example.

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11 Note that I use the terms 'free replication' and 'free-riding', which are not conventional in the evolution literature. Biological evolution involves an unintentional, purposeless process with blind self-reproduction of genes. Richard Dawkins borrowed the same idea to describe cultural evolution and created the term 'meme' as the unit of replication in the evolution process. However, it seems that cultural evolution is fundamentally different from biological evolution, in that the replication of a meme in cultural evolution is not really unintentional, so that the action of replication has consciousness and intention, such as copying others' ideas for one's own benefits. The replication in cultural evolution is in fact a learning process. In this context, the question of 'free' or 'not free' in replication has a far-reaching implication. If it is free, the creator of ideas will be free-ridden by replicators and therefore hurt financially as well as psychologically, and will tend to disappear eventually from the society (market). Therefore, in this case, the cultural evolutionary process will eventually come to a stop, or fail, if you like. No more evolution takes place if the free replication of or free-riding on others' ideas takes place. This seems to be the case for the economic developmental (evolutionary) process, as further discussed in this book.

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2 One may say that this is the ordinary problem of externality which can easily be corrected by intellectual property rights protection, and is nothing special. This may be partly true, but I believe things are not that simple. Success know-how in life, such as not only being wealthy but also being a good scholar, being a good human being and being a good citizen, do not come from legally protected technological know-how. Even wealth creation itself does not only depend on technological knowledge but also, more importantly, on what kind of human being you are. The idea of how to become a good human being with integrity and common sense is not something which is easily protectable by the law, even if it is fundamentally important to success not only in life but also in wealth creation.

13. This view is directly opposed to the Marxian view on the capitalist economy, by arguing that it is the economically 'stronger' ones that are exploited by the 'weaker' ones through the free-riding or free replication of the latter on the former's success know-how. The capitalist economy, according to Karl Marx and communist ideology, is said to be a contradictory system which generates economic inequality due to the exploitation of the economically 'weak' by the 'strong' in a process of class struggle built into the system. This ideology has been powerful not only in the rise of socialist economies but also in the emergence of revised capitalism, the welfare state and social democracy. In this sense they all became progenies of Marxian ideology. However, according to the new interpretation in this book, Marx is placed on his head, and one can become better off only by having better neighbours.

14. Logically, the market can have no difficulty in solving the externality (that is, free-riding) problem under perfect information, and so there cannot be any such issue of market failure in this situation. Therefore there no need arises for an information and transaction costs-minimizing entity such as the firm organization to solve the market failure, because there are no information and transaction costs to be incurred in the perfect-information world in the first place. In this sense, textbook microeconomics does not provide much justification for the firm as an organization while it introduces the firm merely as a black box producer or supplier.

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5. See Coase (1937) and also Jwa (2002b) for an elaboration of this view.

6. See also Alchian and Demsetz (1977 [1972J]).

7. See Jwa (2002b).

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A Note here that economic discrimination within firms is similar to the idea of 'metering', by Alchian and Demsetz (1977 [1972]). The corporate firm comes into existence not only to correct the market's economic discrimination failure in a non-zero transaction costs world, but also to more efficiently discriminate between members of the production team within an organization under an effective internal management system, that is, to closely match performances and rewards and thereby encourage high performance. Furthermore, as mentioned above, one may even go so far as to argue that the reward

- determines productivity, rather than productivity automatically determining reward as is usually assumed in the textbook economics.
19. Simon (1991) compares the market economy and the organizational economy, and argues that the concept of the 'organizational economy' is more appropriate to describe the capitalist economy than the 'market economy'. Here I go beyond Simon's insights, maintaining that the modern corporation possesses the signature role of organizations in the modern capitalist economy, and therefore the 'corporate economy' may be a more accurate description than the 'organizational' or 'market economy'.
 20. Coase also understands the role of the organization as a solution to the externality: 'But the firm is not the only possible answer to this [externality] problem ... An alternative solution is direct Government regulation... The Government is, in a sense, a super-firm (but of a very special kind) since it is able to influence the use of factors of production by administrative decision' (Coase, 1960, p. 17).
 21. It could be argued that we should consider future potentialities as important criteria for the market selection process. While this is almost a truism in principle, it seems that in reality it is only possible to make at best imperfect guesses about future potentialities, which are based largely on information accumulated from past and current outcomes. We may want to know what lies in the future, but nature reveals only past and current affairs.
 22. Jwa (2002b) argues that the market cannot work well relative to the firm when there are high transaction cost activities, while the opposite holds for a low transaction cost environment. This is just a simple extension of this proposition.
 23. There will always exist some better-performing corporations supported by the market, even in an underdeveloped economy while they might not be comparable to the globally competitive corporations of developed economies. Markets, if underdeveloped, are not fully informed about which firms are indeed better, and are so weak in their economic discrimination power that they are unable to help transform such firms to the level of the global companies; hence the economy is stuck in a kind of underdevelopment trap. Therefore a necessary role for industrial policy is to select and support those better-performing firms to venture into new investment activities, thereby providing them with the opportunity to realize their potential.
 24. See Rodrik (2008, 2011) for more details on such institutional arrangements which could help avoid such side-effects of industrial policy.
 25. This argument implies that the World Trade Organization rules prohibiting economically discriminatory policies, such as the corporate promotion industrial policy, need to be reconsidered because they may adversely affect latecomers.
 26. Piketty (2014) is the most recent example.
 27. Hedengren et al. (2010), by analysing the patterns of policy petitions to the US government, show that the choice of economic policy stance of US economists during 1994 to 2009 was influenced largely by their ideological beliefs. Interestingly, among the economics Nobel prize winners, Milton Friedman, Vernon Smith, Robert Lucas Jr, Edward Prescott and Thomas Schelling had always been in favour of conservative, libertarian policies; while Kenneth Arrow, Joseph Stiglitz, Robert Solow, George Akerlof, Lawrence Klein and Daniel McFadden had been mostly in favour of liberal, pro-government intervention policies. In most cases, they almost never changed their ideological beliefs.
 28. Robbins (1932).
 29. This is from the perspective of the New Institutional Economics, which was resoundingly implied also by Buchanan (1964), the founder of Constitutional Economics.
 30. See Jwa (2006, 2008b, 2012) and Jwa and Yoon (2004a, 2004b, 2012) for further exposition of this proposition.
 31. Discrimination, for example, on two-dimensional geometrical objects means identifying the triangle from the square and the hexagon, and so on. If one wishes not to discriminate, then all two-dimensional objects can be uniformly seen as just two-dimensional shapes or objects. There are of course advantages in doing so (just as there are

mathematical advantages in looking at shapes either by geometry or by topology), but what I propose is that acknowledging differences is fundamental to economic discrimination and economic development. Discrimination definitely brings more variety into the two-dimensional space. Identifying differences, however, is only a part of discrimination, as will be seen.

32. See Jwa (2006,2008b, 2012) and Jwa and Yoon (2004a, 2004b, 2012).
33. See Jwa (2006,2008b, 2012) and Jwa and Yoon (2004a, 2004b, 2012).
34. There is a fundamental difference between the General Theory of Economic Development and the evolutionary view of economics that is worth mentioning: the former is conscious while the latter is 'blind', which leaves development to chance and error. Surely, development is too important to leave it to mere chance? Beinhocker (2006) provides a good summary of the literature on evolutionary thinking in business and economics, but he does not seem to fully acknowledge the importance of economic inequality as the result as well as the driving force of economic growth and development, and instead chooses to support democracy as important for the emergence of the complex economy. Although I do not have a problem with this, I observe that in modern times egalitarian-type democracy tends to permeate the economy, which tends to mitigate economic discrimination and hence economic development.
35. See Kahneman and Tversky (1979), Tversky and Kahneman (1981), Levitt and Dubner (2005) and Gneezy and List (2013). Behavioural economists acknowledge the importance of incentives beyond the price system, such as with 'gain framing and loss framing*', which is consistent with economic discrimination - for example, never fail to reward a merit or let a fault go unpunished; or rewarding high performance and penalizing low performance; or God helps those who help themselves - there is an implicit 'carrot and stick*' feature in all these incentive systems.
36. Quoted from the first paragraph of Chapter 1, 'Self-help', in Smiles (2008 [1859]).
37. This interpretation is different from the traditional interpretation. For example, Tang (2015, p. 302) gives the usual translation as, 'The virtuous (*junzi*) get on in harmony without agreeing to each other; the base (*xiaoren*) agree with other without harmony? Mostly this 'unity in diversity' quotation has reflected moral and ethical interpretations implying that a great person should make sacrifices, while the ordinary man does not; or sometimes that Confucianism prefers an equal society not unlike a primitive communal system.
38. Incidentally Jwa (the author of this book) is the namesake of the ancient Chinese scholar Zuo, the first ancestor of the Zuo family.
39. Chang (2002) seems to succeed in showing evidence of widespread infant industry promotion policies adopted by the then developing Western developed economies, but fails to provide reasons for the success or failure of those policies, given the diverse experiences thereafter.
40. I have argued elsewhere that the political ideology pursuing homeownership for all, and the resultant housing and financial market policies, were the fundamental causes of the subprime mortgage crisis. The incentive structure determined by the institutional environments as the *rules of the game* is what ultimately affects economic behaviour. Less creditworthy borrowers* home purchases, lax mortgage lending, greedy Wall Street, and so on, are not autonomous, exogenous incidences but rather are endogenously determined by the existing institutional arrangement. The subprime crisis was, in fact, the product of distorted incentive structures created by economic institutions driven by the ideology of homeownership for all, an agenda that rests firmly on the ideology of equality. This is precisely an effect of government-led institutional failure. The issue of who owns or rents a house can only be efficiently determined by the market, and certainly not by an equality-seeking government. The government induced financial institutions to extend unhealthy lending and encouraged less creditworthy borrowers to purchase houses through various institutional arrangements and policy instruments, which resulted in serious market malfunction and distortion. In short, the most fundamental function of the market - to discriminate between creditworthy and less

or non-creditworthy borrowers - was ignored by government policies in the name of political ideology (see Jwa, 2008a; Jwa and Hwang, 2009 for details on this argument).

41. The issues taken up here, such as the impact of politics on the economy - that is, the issues of political economy - will be further elaborated in Chapter 8.
42. The problem sometimes seems to be that adding a political dimension tends to add complications that associate political equality with economic equality, despite the fact that they may not in fact always be closely associated. See also Jwa (2006,2008a, 2008b) for the same arguments regarding Korea's economic policy experience.
43. It is said,⁴'You can take a horse to water, but you cannot make it drink.'

8. A positive theory of political economy with applications

8.1 POLITICAL INSTITUTION AS A CONSTRAINT ON ECONOMIC DEVELOPMENT

Neoclassical economics is devoid of institutions and even more so of politics. In reality, however, politics always plays a key role as an important institutional constraint on economic behaviour and development. Politics and political ideology, however, have always been out of the reach of positive economic analysis. As it stands, political science remains essentially a normative subject founded upon and in turn influencing political ideologies, which in turn influence the choice of economic institutions. Despite this, except for some cursory or sometimes technical look at the empirical relation between democracy and economic growth, mainstream neoclassical economics has been somewhat inactive as relates to research about fundamental theoretical issues of politics, such as political ideology and political institutions and their relation to economic development.¹ Furthermore, it seems to be the case that any challenges to the existing political institution of Western democracy, which has now positioned itself as the main paradigm, is regarded as blasphemous; so that the lively and objective discussions on such issues by the economics profession have become taboo and/or somewhat subdued.

Positive economic science has become subordinate to the normative political science and has usually limited itself only to the technical analysis within the socio-economic institutions set by political ideology and institutions. There seems to be no coherent economic theory about the choice of political ideologies and institutions, especially from the economic development perspective, which can be properly called a 'positive theory of political economy*'. Here, political economy is understood as a conceptualization of a complex economy inseparable from the politics, emerging as a whole from the complex interactions with the politics in which the economy is constrained by the rules of the game largely imposed by politics. The positive theory of political economy aims at establishing the analytical framework of the political economy through the lens of economic discrimination.²

In recent decades, the New Institutional Economics has begun to emphasize the importance of political ideology and political institutions as important constraining institutions affecting economic development,³ and this has opened the way towards a positive theory of political economy. But this development has faced some obstacles because there has not been a clear answer to the question of what constitutes development-friendly or -unfriendly political ideologies and institutions. In this regard, the new General Theory of Economic Development can provide an important insight into the essence of a positive theory of political economy, because it brings the particular nature of institutions, which are important determinants of economic development, into the forefront of the economic development discussion.⁴ In this chapter, I establish a positive theory of political economy based on the economic discrimination principle, and apply it to explain the global economic development experiences. Finally, I present an analysis of the currently hottest issue of economic polarization.

8.2 A POSITIVE THEORY OF POLITICAL ECONOMY

8.2.1 Theory of Institutional Choice for Economic Development

So far, economic science has lacked an economic theory of political ideology and institutions, and has degenerated into a science providing mainly technical advice to achieve the national agenda which is guided more directly by the political ideology and its institutions. Put differently, economics has come to play only a subsidiary role to political science in society. This has been a central reason for the proliferation of egalitarian economic policies, locally as well as globally, aiming at helping everybody equally regardless of their economic efforts and achievements. This egalitarian approach, as I have argued, has resulted in global economic stagnation for several decades. Evidently, the world has increasingly tuned in to egalitarian ideology at the cost of economic discrimination. In this regard, one can easily see that economic science needs to work seriously on providing a theory of economic development that promotes political ideologies and institutions based on their economic developmental implications, while dismissing unfounded political ideologies that encourage development-unfriendly institutions that destroy the economic dynamism of the national economy. Of course, one of the main purposes of this book is to establish a new General Theory of Economic Development to serve exactly this purpose. More specifically, I establish a positive theory of political economy by bringing the general economic discrimination principle to evaluate the development-friendliness of political ideology

and institutions, and even the quality of political leadership, into the New Institutional Economics framework encompassing the fourth and fifth layers of Figure 3.1 in Chapter 3, which treats the political as well as the cultural environment as important choice variables. In fact, the new theory helps us to judge whether or not the specific political ideologies and institutions and political leadership will be friendly to economic development.

Here, it is one thing to say that institutions act as important constraints in determining the economic behaviour of individual agents and organizations and, ultimately, economic development; and it is another thing to say what institutions are good for development. The new theory guides us to an answer: any institutions can be development-friendly insofar as they endorse or treat economic difference differently and allow the emergence of economic inequalities resulting from competition under fair rules of the game. On the other hand, institutions working against the natural tendency of the market to create economic differences will only be stumbling blocks to economic development. Note that these arguments apply not only to economic institutions but also to political institutions, not only to formal institutions but also to informal institutions, and not only to the institutional policies but also to public policies in general. This is the universal theory of the institutional and policy choice for economic development which, I claim, should be the basis for the positive theory of political economy.

From this new perspective, one can see the need to clearly define the concepts of informal institutions, such as fairness, justice and equality, which so far have remained vague, value-loaded and normative, and have largely been based on historical tradition, culture and socio-economic values. It is necessary to see whether such concepts are consistent with the principle of economic discrimination, so as to be pro-development. In fact, the implication of the new General Theory of Economic Development should already be obvious on these issues, biformal institutions will not be development-friendly unless they are ready to accept the economic inequalities resulting from the economic discrimination principle, in tandem with the 'holy trinity' of development. Therefore, the economic meaning of fairness, justice and equality should be to help those who help themselves, to treat economically different achievements differently, or what is referred to as 'the dispensation of justice' (that is, never fail to reward a merit nor to let a fault go unnoticed); and definitely not the other way around, if those are to be development-friendly. The same logic applies to historical values, culture and other socio-economic values.

8.2.2 Ideology, Culture and History as Masters of a Nation's Economic Destiny

Ideology is a key determinant of political as well as market institutions. Institutions, or the 'rules of the game', often determine the incentive structure of the society, thereby affecting the behaviour of economic agents. Therefore, it follows that in turn individuals and organizations have an incentive to change the rules of the game in their favour. The political process is an often-used mechanism through which socio-economic players create or revise the rules of the game for their own benefit. And, indeed, political parties and leaders play an important role in this process. Through the political process in modern democracy, the prevailing ideology of the general public can directly or indirectly affect the content of formal political as well as economic institutions, by selecting political parties and leaders having a similar ideology who, in turn, are directly involved in determining the formal institutions that affect economic behaviour and national economic performance. Here, however, while the prevailing ideology is important, especially critical is the ideology held or supported by the ruling political leaders because they can often directly determine and shape the country's socio-economic institution through their leadership role, even independently from the citizens' ideology if they are determined to do so. Leadership, therefore, can act as an exogenous determining factor for the nation's whole institutional environment, as indicated in the fifth layer of Figure 3.1. In this regard, an independent political leadership can influence the public's economic behaviour, and even the prevailing ideology eventually, by introducing and enforcing for a sustained period institutions which are different from what the general public may identify with. Of course, the issue arises of what kind of leadership will be development-friendly. The new General Theory of Economic Development strongly implies that the ideology of political leadership needs to be consistent with the principle of economic discrimination if it is to be development-friendly, as has been observed for the various economic successes in modern history.

However, ideological change does not happen very often, because political leaders, especially in the modernized world, tend to bend easily to public demands - that is, become populists — as can be seen in the case of modern democracies. In many cases the ruling ideology depends on and follows the public's ideology, and one can see institutional choice drifting anchorless, influenced by the public's majority ideology and sentiments, which can often be capricious.

By 'ideology*', I mean a vision of the world or the universe, or the overall comprehension of things and events around us.⁵ The prevailing ideology governs the ideals or objectives which an individual, a society and political

parties often prefer. Ideology is not necessarily based on logical reasoning, but rather on normative judgement; it does, however, heavily influence the beliefs concerning what one's life is all about, where society should head, what kinds of political parties should be in place, and so on. The twentieth century, for example, has many examples when ideology exerted a huge influence on economic institutions as well as economic policy-making, and has been a critical factor in determining the country's economic fortune; for example, as revealed strikingly by those countries adopting a socialist economic system. It goes without saying that this is why it is worth seriously considering whether the nature of the prevailing public's or political leaders' ideology is compatible with the fundamental nature of economic development. It should be kept in mind that a development-friendly ideology respecting the principle of economic discrimination is the main recipe for economic development, while an egalitarian ideology favouring economic equalities such as equal economic outcomes, or even equal opportunity in a strict form, and an anti-economic discrimination ideology, are development-unfriendly. It is also worth mentioning that economic opportunity depends on effort, ability and often luck, and may not be subject to equalization by the government or other non-market means. We need to respect equality before the law, however, and should even empower those in weak and disadvantaged positions if required. But it is important to note that the areas where government efforts can provide equal opportunity in general, beyond equality before the law, are quite limited.⁶ Moreover, one should not forget that any economic empowerment policy can only hope to be sustainable if it is economically discriminatory.

History and culture can also influence a country's economic destiny. Historical tradition and culture work on a similar level to ideology, affecting the socio-economic behaviour of all members in the society, and may even have a stronger impact compared to ideology because they may be more generally accepted by most people. Tradition and culture work almost like a 'national religion' and constitute important institutional constraints. Path-dependence, inertia, network externality, and so on, in the process of the institutional evolution, are all important reasons-why they are strengthened and persistent and, above all, not easily changed. In this regard, the new General Theory of Economic Development informs us that economic success has depended, and depends, critically on whether the society's tradition and culture have been development-friendly by being compatible with economic discrimination principle.

Be that as it may, good leadership should avoid being a slave of ideology, history and culture. While informal institutions such as ideology, history and culture do heavily influence a country's economic destiny, the chances for development are jeopardized if development-unfriendly institutions

proliferate in the country. The important role of political leadership again comes to the forefront. The main role of the political leader(s) for economic development is to transform the country's informal institutions as well as its formal institutions into development-friendly institutions.

One can easily verify that most successful economies owe much to the quality of leadership. One can find many conspicuous examples of such leaderships in modern times which have been able to change the development-unfriendly ideology, historical tradition and culture as well as formal institutions towards being development-friendly. For example, Park Chung-hee was able to change the Korean people's ideology, which traditionally and culturally had negatively affected Korean people's way of thinking and behaviour. Koreans were characterized as lazy, sloppy and dependent, and often blamed the heavens or others for their misfortunes. Korea's socio-economic policy regime under Park's leadership, of helping those who help themselves, effective for almost 20 years, helped to transform Koreans into 'self-help' people, removing the previous ideology, tradition and culture from them.⁷ A similar transformation took place in Singapore under Lee Kwan Yew, and in China under Deng Xiao Pin's leadership, as presented in Chapter 5. In this sense, for economic progress, society should not be constrained by development-unfriendly ideology, tradition and culture, but rather should transform those into development-friendly forms. For this transformation, leadership can make a huge difference. Such leadership can be called 'economically discriminatory leadership'.⁵

Ideology, history and culture are very stubborn institutions which can only be transformed by the stubborn enforcement of formal institutions that are different from the existing formal and informal institutions, over a prolonged period, so that people can become accustomed to the new institutions. Whether this is achievable will critically depend on the quality of leadership.

8.2.3 Model of Political Economy Systems

Having established the theory of institutional choice for economic development, I now move on to investigate systematically the role of political institutions for economic development. More specifically, the issue of what kind of democracy would be conducive for economic development will be addressed. This section will establish a model of a political economy system of socio-economic order for development.

Firstly, two different types of nation states can be distinguished in relation to economic development: the development-friendly state (DFS) and the development-unfriendly state (DUFs). From the perspective of the

new General Theory of Economic Development, a development-friendly state is one that consistently implements economically discriminatory institutions and policies for economic development. Some prerequisites for the development-friendly state may include: (1) political leaders understand that economic discrimination is necessary for economic development; and (2) they are able to mobilize political support for economically discriminatory institutional reforms and policies from the general public as well as from politicians, which in turn requires the state to keep a majority of the population in support of an ideology consistent with economic discrimination.

In the twenty-first century, democracy has developed to the extent that most economic institutions and policies are determined or strongly influenced by the majority party's ideology. A state that does not meet the two prerequisites given above would be classified as inclining towards being a development-unfriendly state. In sum, a development-friendly state should be able to change the nation's majority ideology to be agreeable towards the economic discrimination principle. This also means that ideology, which so far has been treated as an exogenous variable in mainstream economics, becomes an endogenous choice variable.

Secondly, one can distinguish between development-friendly and development-unfriendly political economy regimes. Liberty and equality are often considered to be the two wheels of the democracy cart. The issue with liberty is that it seems to be easily subdued by the egalitarian ethos, especially in modern-day democracies that emphasize 'equal rights'. Central to the ideals of democracy, for example, is the 'one man, one vote' mechanism that provides an easy environment for the egalitarian ethos to thrive. Furthermore, such egalitarianism has tended to permeate into all aspects of life, being translated into 'equal opportunity' in economic capability rather than before the law, 'equal outcome', and so on. This has adversely affected economic development, because such egalitarianism tends to contradict the principle of economic discrimination.

From the perspective of the positive theory of political economy, by bringing the economic discrimination versus anti-economic discrimination economic orders as well as the democracy versus anti-democracy political orders into the consolidated political economy regimes, one can derive a theoretical framework to classify four different political economy regimes according to the combinations of political order and economic order, as shown in Table 8.1: $A + C$ = market democracy, $A + D$ = egalitarian (social) democracy, $B + C$ = developmental state, and $B + D$ = totalitarian state.

Here, it can easily be seen that $A + C$ and $B + C$ are development-friendly because they adopt an economically discriminatory policy regime.

Table 8.1 Political-economy matrix of social order

Political order	A	B
	Liberty (equal political rights)	Authoritarian
Economic order	C	D
	Economic discrimination (ED)	Egalitarianism (equal outcome)

Source: Jwa and Yoon (2004a).

while A + D and B + D are development-unfriendly because they are under an economically egalitarian regime. Therefore, seen from this perspective, as far as economic development is concerned, the political order being democratic or authoritarian may not be crucial but the choice of economic order is very critical. Even a politically authoritarian state can be development-friendly if it is economically discriminatory, by embracing economic discrimination in its institutions and policies. On the other hand, liberal democracies can result in economic stagnation if they lean towards egalitarianism. To sum up, political democracy can be development-unfriendly if it inclines towards economic egalitarianism that mitigates the economic discrimination function of the market. Note that this is why democracy and the market economy sometimes are not easily compatible.

It is interesting to compare the framework above with the two-regime classification, inclusive versus extractive institutions, as proposed by Acemoglu and Robinson (2012). My classification here is much richer and broader in that compared to their inclusive and exclusive institutions classification, my framework can distinguish between four different regimes: the totalitarian state, developmental state, market democracy and egalitarian democracy. Note furthermore that the totalitarian state, which is described as an extractive institution in their classification, can in my classification be inclusive and development-friendly if it firmly adheres to an economic discriminatory economic policy regime; while a plural democracy described in their classification as an inclusive institution can be development-unfriendly if it degenerates into an egalitarian democracy. The important point here is that their development-friendly inclusive institution is remote from development if it is economically egalitarian; while their extractive institution can in fact be development-friendly according to my classification so long as economic discriminatory economic policies are firmly in place. Interestingly, however, Acemoglu and Robinson seem to support egalitarian democracy, which in my classification is development-unfriendly.

Having explained how ideology and the type of political economy regime of the state can be endogenous choice variables, one can then ask how development-friendly ideology and political institutions of the state might be created. Lessons from the condensed development experiences of Korea, Japan, China, and others, can help, where the repeated application of economic institutions and policies based on the economic discrimination principle have transformed peoples⁵ ideology to become development-friendly. Conditions for this change are:

1. An economically discriminatory leadership having the strong political will to reform the nation's politics and ideology consistently with economic discrimination, which is the same as the preconditions for a development-friendly state.
2. For this kind of reform, education and moral suasion for people to change their ideology, mindset and behaviour that reinstates the 'self-help' spirit may be of some help, but a more effective way is to reform and enforce those institutions and policies which contain elements of helping those who help themselves, that is, institutions which embody economic discrimination. The introduction and enforcement of economically discriminatory rules of the game in the society for a sustained period is the surest way to transform a country to become development-friendly. The role of the leadership is key for the success of this transformation.
3. An effective firewall must be built between the areas of economic policy-making and politics in order to act as a barrier to obstruct egalitarian populism from permeating into economic policies, regardless of the specific political regime.

Examples of successful leadership in the modern era in changing the nation's ideology and transforming the state towards DFS are the political leaders in Meiji Japan, Park Chung-hee in Korea, Lee Kwan-yew in Singapore, Deng Xiao ping in China, Thatcher in England, Manmohan Singh in India, Mahathir in Malaysia, and maybe Reagan in the United States (US), to name a few.

It may be interesting to note that economic development under a less or non-democratic political regime has often been due to the leadership's efforts in restricting the populist egalitarian ethos from encroaching upon the economic policy-making process. On the other hand, many cases of failure under non-democratic regimes turn out to arise from populist egalitarian inclinations by the leaders; for example, to buy people's tolerance for their politically unjustifiable power. Also note that unsuccessful economies under a modern democracy were often

caused by a populist egalitarian democracy that disregarded economic discrimination.

8.3 BRIEF OVERVIEW OF MODERN ECONOMIC DEVELOPMENT EXPERIENCES

8.3.1 General Pattern of Cross-Country Economic Development Experiences

This section briefly applies the model of political economy system developed in the previous section to explain some of the diverse economic development experiences in various countries. Figure 8.1 classifies the success or failure experiences of selected economies according to the political-economy matrix of social order shown in Table 8.1.1 briefly review those experiences below.

First is the totalitarian state. A state is totalitarian if it is non-democratic and authoritarian as well as economically extractive or extremely egalitarian. Market institutions such as economic freedom and the private property rights system supporting economic discrimination are usually not established and the state then is classified as a development-unfriendly state. The ultimate purpose of such a regime is often to prolong the status quo, when economic distress most likely will lead to its eventual collapse. Most people live under economic hardship except for the small ruling elite. Examples are many of the old monarchies in the agrarian economies, often subject to the Malthusian trap before the Industrial Revolution, the former socialist economies including the USSR and the China under Mao Tze Tung, and some other African and Latin American countries during the Cold War period, as well as North Korea today.

Second is the developmental state. Interestingly, even if it is politically non-democratic, a state that adopts economically discriminatory institutions can be a development-friendly state. This for example happens when a monarchy adopts discriminatory market institutions, sometimes under political pressure from the citizens demanding economic freedom as was the case in a number of Western economies during the years of the Industrial Revolution, or when an authoritarian regime, sometimes following a *coup-d'état*, introduces discriminatory market institutions while insulating the policy-making process from egalitarianism by limiting political freedom, for example. Economic freedom is expanded with the introduction of private property rights, while political freedom is restricted or limited. The state strongly intervenes in the market with discriminatory industrial policy. The developmental state usually builds

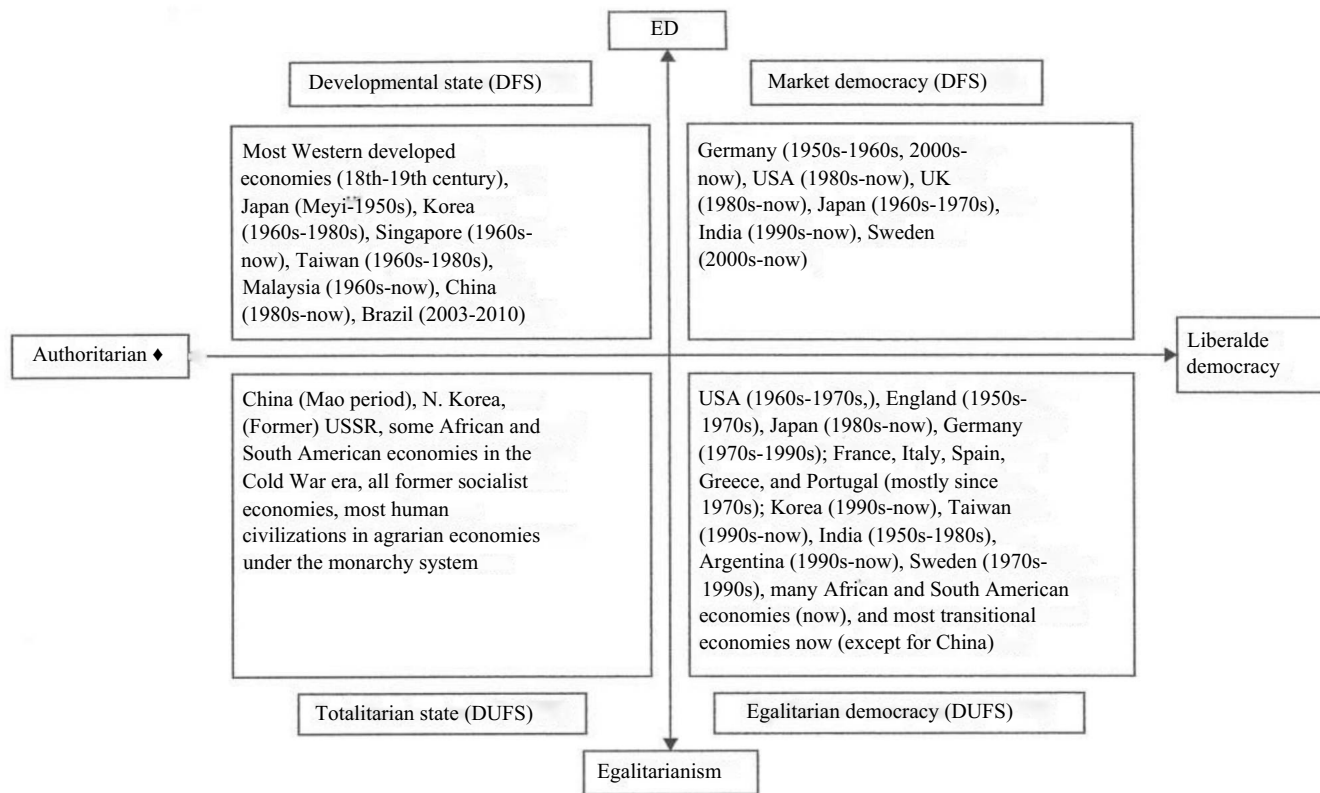


Figure 8.1 Political-economy axis of the social order

economically discriminatory institutions and policies to improve people's economic prosperity, while liberal democracy is sacrificed to a greater or lesser degree. With such a regime, the market economy and the limited liberal democracy or authoritarian political regime are seen to be working together for economic development. There are important examples of successful economic take-off in the modern era under the development state, which arguably could be considered as the predecessor to the stage of liberal democracy.

Examples in history include most of the now developed Western economies that took off in the eighteenth and nineteenth centuries, Japan since the Meiji era to the early post-war period of the 1950s, Korea in the 1960s to 1980s, Singapore under Lee Kwan Yew, Malaysia under Mahathir leadership, Taiwan in the 1960s to 1980s, and China since Deng Xiao Ping's economic reform in the late 1970s. These examples have common features worth mentioning: (1) the regimes are characterized by discriminatory economic institutions and policies that allow private property rights and economic freedom to differing degrees; (2) industrial promotion policies are based on economic discrimination; (3) policies do not seek a balance in industrial, corporate or regional development; (4) widespread meritocracy where economic excellence is championed; (5) the adoption of business-friendly policies that support corporate activities; and (6) a general acceptance of the concentration of economic power in urban cities, growing regions, successful corporations and hard-working self-help people, to name a few.

Thirdly, there is market democracy. Arguably, market democracy may be the best possible socio-economic order, as it accords with the development-friendly state characterized by political freedom and sustainable economic prosperity under the precondition that the regime succeeds in keeping the economic order from becoming distorted by egalitarian political ethos. Nonetheless, successful examples of market democracy in the modern era are rather uncommon, as the economy is often overwhelmed by politics. There seems to be no magic solution to the question of how to contain the political order so that it does not contaminate the economic order. Historical experiences tell us that most modern democracies have switched back and forth between the two types of democracies, market and egalitarian.

Examples include the US since the Reagan administration and the United Kingdom since the Thatcher reform in the 1980s, Japan during 1960s-1970s, Germany during the 'Miracle on the Rhine' under Ludwig Erhart in the 1950s and 1960s, and after the Schröder reform in 1998, India since the Manmohan Singh reform in the mid-1980s, and Sweden following the welfare reform in the 1990s. The common features of these

examples include: (1) these nations mostly comprise the democratized developmental states that managed to maintain their previously discriminatory economic policy regime, as well as developed economies that successfully transformed their egalitarian economic regimes into the discriminatory ones; (2) widespread adoption of business-friendly policies; (3) use of economic empowerment policies that embodied the discriminatory incentive structure of helping those who help themselves; and (4) general reform of the welfare system emphasizing individual responsibility, for example, Sweden.

Fourthly, there is egalitarian democracy, which is perhaps the most popular among the regimes found in developed as well as underdeveloped nations. According to my theory of political economy systems this is a development-unfriendly state. Many democracies have, however, switched back and forth between market democracy and egalitarian democracy. However, modern-day democracies have a tendency to lean towards egalitarian democracy rather than market democracy. This is not good news for the future of global economies.

Examples are the US during the Great Society before the Reagan administration (1960s-1970s), the United Kingdom during the post-war period before the Thatcher reform (1950s-1970s), Japan since the Tanaka reform (mid-1970s), Germany under the strong influence of the social democratic party (1970s-1990s) after the 'Miracle on the Rhine', with a short break during Cole's unsuccessful reform efforts, until the Schröder reform;⁸ France, Italy, Spain, Greece and Portugal under social democracy in the post-war period (since the 1970s following the tide of the Revolution de Mai in 1968 in France), Korea since the democratization cum egalitarian policy reform (since the 1990s), Taiwan since the 1990s, India under strong social democracy (1950s-1980s), Argentina (since the 1990s), Sweden under strong social democracy (before the 1990s), some African and South American economies under social democracy since the post-war period and also most of the transition economies under social democracy, except for China.

Most visibly, not only the developed economies but also the developing economies that have pursued social democracy comfortably sit as this type of egalitarian democracy regime. Their common features are: (1) proliferation of business-unfriendly policies, having numerous regulations as well as higher corporation tax rates; (2) growth-unfriendly policies, disfavours the rich to whom high tax rates apply; (3) adoption of non-discriminatory, unconditional welfare and economic empowerment policies that encourage moral hazard; and (4) emphasis on distribution at the expense of growth, with economic excellence sacrificed.

8.3.2 Future Prospects

Where do we stand now? Except for a few economies around the world, developed as well as developing ones, most countries are leaning dangerously towards egalitarian democracy. Most of the developed economies as well as developing economies have embraced democracy, but are slipping into egalitarian democracy rather than market democracy. It seems that ideologies across the globe are converging towards an egalitarianism that sees the world as being in a state of economic conflicts and inequalities, and hence it is the duty of the state to actively correct the situation. It is implicitly assumed that the state must steer the society by putting in place corrective redistribution policies to remove or mitigate economic differences. It is further implicitly assumed that a more equal society is necessarily a much happier one. The catchphrase exploited by many political leaders seems to be 'happiness for all'. The people of the world seem more and more to seek happiness without making any effort or sacrifice. This is the current crisis of democracy, rather than the crisis of the capitalist economy. Instead of seeking to reform the market economy, therefore, it is more urgent to think about building cushions or safety nets to restrict democratic politics, regardless of its specific forms, from distorting the economic order or, more specifically, economic discrimination. Democracy is not God as much as the capitalist economy is hardly the Devil.

There is much speculation regarding the new economic hegemony in the coming decades or century. Will it be the US or China? The answer will largely depend upon which nation will be able to tame democracy to keep economic discrimination intact, thereby allowing the nation the economic power to become a market democratic leader. By most indications, it seems that the US is slipping into a kind of egalitarian democracy, while China continues to strongly discount Western democracy and has chosen instead to speak about a 'deliberative democracy'. China seems to be worried about the 'middle-income economy trap', which is actually a kind of egalitarian trap which many countries, including Korea, have not been able to escape. The more China succeeds in transforming its developmental state into a market democracy without sacrificing economic discrimination, the higher the probability that it will catch up with the US. Meanwhile, if the US continues to strengthen its market democracy position by maintaining and strengthening economic discrimination across its institutions, then it will be able to maintain its hegemony for a prolonged period. What about other economic powers such as Japan, Germany, and other advanced European Union (EU) economies? It seems that Japan and other advanced EU economies have already fallen too deeply into the egalitarian trap, while Germany seems to be in a relatively better situation.

The key factor is whether they can successfully manage to get out of the egalitarian trap and reinstate economic discrimination into the economic policy regime. The same is true for developing as well as underdeveloped economies which are now increasingly seeking egalitarianism with the misleading idea that this will help to rescue their populations from poverty.

It is sincerely hoped that this book will help the current stock of humanity, 7 billion humans, to find a way out of the current dilemma, in which the global economy is falling back into an increasingly unequal society with increasingly egalitarian policies. Paradoxically, the message of this book is that the solution is to adopt and revive economically discriminatory policies, to fight against economic stagnation and inequalities.

8.4 CAUSES AND CURES OF ECONOMIC POLARIZATION AND GROWTH STAGNATION: APPLICATION OF THE POSITIVE THEORY OF POLITICAL ECONOMY

8.4.1 Contradiction of Egalitarianism

The world in recent times faces the formidable conundrums of economic polarization (that is, worsening income distribution) and economic stagnation, despite efforts seeking a more equal society since the mid-1950s with the proliferation of egalitarianism as revised capitalism or social democracy which was increasingly adopted by many capitalist economies, and during which time the balanced growth agenda under social democracy was also propagated by many developing economies and even more dramatically by the twentieth century socialist economic regimes. Contrary to intentions and expectations, the world's economies are now plagued by the twin problems of economic polarization and growth stagnation.

Some critics of the capitalist system have pointed their finger at the fundamental contradiction of the capitalist economy, often taking their cues from the Marxian perspective (especially Piketty, 2014). Some blame the neoliberal policies of the 1980s (Stiglitz, 2012) for the conundrums, which seems a little misplaced in terms of timing as the Thatcher-Reagan era was relatively short-lived, and despite some lingering effects it would be too much of a generalization to blame the liberalization policies for the problems over such an extended period of time. In this regard, broadly speaking, the common underlying institutions of the post-war political-economy regime in many of the world's economies can properly be called economic equality-seeking 'egalitarianism', which includes revised capitalism and

social democracy, as well as socialism. Therefore, one can see that the efforts to create a more economically equal society - or, in other words, shared or inclusive growth - have in fact created more inequality, and has also depressed growth, thereby causing widespread economic stagnation against all intentions and expectations. This is the fundamental dilemma we now face, which requires an urgent solution.

A naive application of Marxist's ideas by some economists claims that the worsening income inequality is simply an inevitable consequence of the capitalist economy. It is argued that because it is the reflection of the fundamental contradiction of capitalism, there is a stronger call for strengthening redistribution efforts, which has been the main tenet of egalitarianism behind egalitarian democracy and egalitarian economic policy regimes in the post-World War II era; but of course with disappointing results.

On the other hand, the mainstream camp has announced this to be the 'new normal'⁵ that is expected to continue for some time.⁹ Broadly speaking, economists do not seem to understand the reasons for the current woes, nor how to deal with them. This is partly understandable because mainstream economists too were architects or supporters of the egalitarian political economy regime (revised capitalism as well as social democracy) in the post-World War II era, and even development economics itself once preached balanced or egalitarian growth as a prime goal of economic development. The fact however remains that the world is now experiencing even worsening economic polarization and growth stagnation. What, then, is the matter with the economists'⁵ toolkit regarding shared growth? This question cannot be avoided, as the twin problems occur despite the more developed levels of human and physical capital as well as technology as advised by the state-of-the-art neoclassical growth models, and the much more refined market institutions as advised by the New Institutional Economics as well as the mainstream.

Indeed it is not that the mainstream has not tried to provide some explanation for the growth stagnation and worsening income distribution, especially in the context of the developed economies. The argument as it goes is that, on the one hand, growth stagnation has been attributed to low growth rates in the population, as observed over the recent decades in the ever-declining fertility rates for most developed economies which has adversely affected the workforce, which based on the neoclassical growth model has adversely affected economic growth. On the other hand, the worsening income distribution is attributed to the globalization-driven competitive pressure from the newly industrializing economies, which necessitates industrial restructuring and the ensuing technological innovation, including the information technology (IT) revolution that has resulted in the so-called digital divide. Both the restructuring and digital divide, it is argued,

have placed low-skilled workers into a relatively more disadvantaged position, thereby exacerbating income polarization.¹⁰

Although simply stated, the above arguments are somewhat complicated and elusive. Firstly, the low population growth argument totally ignores the importance of human capital (the number of workers times the level of workers* quality), of which quality as well as productivity must have improved at an unprecedented pace during the last half-century thanks to the tremendous increase in educational investment and technology. It may be argued that the declining population growth is a result of the increasing participation of women in the workforce which however adds to higher growth, in which case a lower fertility rate is to be expected as children are a Giffen good while their 'quality' is a luxury good. It should also be the case that while the growth in numbers of workers has declined due to the falling population growth rate, the quality of workers must have improved so as to more than compensate for the loss of their numbers.

Furthermore, technological improvements in the post-World War II era must have contributed to the increase in the total factor productivity as well as labour productivity. Then, a more pressing issue must be why, with so much investment in education together with technological improvement, has there not been a corresponding pay-off? What seems to have gone wrong with education policy? I have already suggested an answer to these questions on many occasions throughout the book. The problem stems from the siege of educational policies by egalitarian democracy as part of the general social empowerment policy that has been largely egalitarian, and therefore fails to seek educational excellence to fully realize the potential developmental benefits of education.

Secondly, the globalization-led restructuring and IT divide argument for economic polarization is not fully convincing either, as it puts the blame directly on the very merits of capitalism - that is, globalization-driven innovation and industrial progress - as the source of problem. In a sense, this is just like the argument regarding the 'fundamental contradiction with capitalism. The more fundamental question should be why developed economies face a challenge in competing with newly industrializing economies in the first place. Here, the problem seems to lie with the labour unions, which tend to become the stumbling block to the necessary restructuring in order to compete with the newly industrializing economies. One wonders, then, whether the labour union is a capitalist or socialist institution. I will elaborate upon this further a little later, but for now suffice it to say that the labour union is in essence a product of socialism stemming from the Marxian ideology of class struggle, and does not derive from capitalism. Hence the capitalist economy per se should not be blamed for the current woes.

I continue to investigate below the causes and possible cures for the twin problems of economic polarization and growth stagnation based on the model of the political economy system and lessons of economic development experiences presented above. I will argue that economic polarization cum growth stagnation, rather than being the fundamental contradiction of capitalism, is a result of egalitarianism that extends to egalitarian democracy and egalitarian economic policy regimes.

8.4.2 Capitalism: a Contradictory System?

We are witnessing the rebirth of Karl Marx's (1977 [1867]) *Das Kapital* with Thomas Piketty's (2014) *Capitalism in the Twenty First Century*, which seems to be a culmination of a series of arguments by Reich (2007), Stiglitz (2012) and others in recent years. The key issue of paramount importance in the global economy is the twin problem of economic polarization and growth stagnation. The usual arguments run as follows. Since economic inequality has worsened despite continuous efforts to reduce it, we now have economic polarization, which has called for income and wealth redistribution policies to be reinforced. Capitalism is viewed as a contradictory system creating economic inequality, and therefore even more efforts are required to create a more equal socio-economic system.¹ Economic polarization' has become a popular catchphrase when warning about the misfortunes of the capitalist economy. For example, it is repeatedly announced that the spectrum of wealth is now distributed such that the bulk of the world's wealth is owned by only 1 per cent of the population,¹¹ and that this indeed makes the capitalist economy a contradictory system as argued by Karl Marx, and hence something must be done to correct this situation.

The situation is more complicated than it may appear to be. There are two relevant issues here. Firstly, we should ask whether the so-called 'economic polarization' does truly mean 'polarization', or 'downward equalization for all'. Secondly, it remains to be answered whether the current economic polarization is actually the outcome of the fundamental contradiction of the capitalist system. The new General Theory of Economic Development provides a definitive answer. It implies that the pattern of distribution we are witnessing is more likely an outcome of a downward economic equalization process, or 'race to the bottom', stemming from widespread egalitarian economic policies; and therefore it is not caused by the capitalist economy itself. Rather, what we are witnessing is the result of the egalitarian ideology and the resulting egalitarian democracy and economic policy regime which have distorted the incentive structure of the capitalist economy since the post-World War II period. That is, the currently distorted capitalism is a victim of the egalitarian ideology, rather

than the cause of the current economic polarization. The positive theory of political economy explains that the twin problem of economic polarization and growth stagnation has become the general feature of egalitarian democracies.

8.4.3 Egalitarianism as the Cause of Downward Economic Equalization

As mentioned above, mainstream economists have argued that economic polarization in developed countries has been due to the rising unemployment of unskilled workers, caused by the hollowing-out of domestic industries that lost their competitiveness to the newly industrializing economies in the process of globalization, as well as by the accompanying domestic industrial restructuring towards adopting higher technologies and higher-value-added service industries.¹² As job opportunities diminish for the middle-income people, more of them slip into the lower-income class, which has been increasing in size. Ironically, the same voices that display concern about the increasing economic hardships due to globalization and technological innovation cannot but admit at the same time that these are important salient features of economic development in the dynamic capitalist economies. Indeed, the expansion of market size and the resulting competition and innovative activities are the most creative aspects of the market economy and even its *raison d'être*, but, ironically, are now criticized as the fundamental weakness of the capitalist market system that has created all kinds of economic woes.

However, the new General Theory of Economic Development reveals that this narration can only be ostensibly correct. Here the relevant question to ask is why developed economies are facing a de-industrialization process. Is it a natural feature of the capitalist economy? Or is it because of the inflexibility of the labour market that acts as a barrier to the smooth structural transformation required to maintain industrial competitiveness and domestic employment?' The answer is 'no' to the former question and 'yes' to the latter one. If these answers are correct, and then one can pose the question in a different way: 'Is the inflexibility of the labour market a fundamental characteristic of the capitalist market economy or a byproduct of socialist ideology?*

Ever since the Industrial Revolution, the growth of capitalism has accompanied the absolute growth of real labour income, which was enhanced by the rise of the labour unions⁵ power as well as increases in labour productivity. This is the good part of the story. In the process, those adhering to Marxian ideology have argued that capital exploits labour and that income inequality is a direct result of the contradiction of the capitalism system, and this argximent has been used as an important promoter to

enhance labour union power; but as I have argued, it has at the same time created the endemic problems of the inflexible labour market that has kept wages artificially high, while acting as a serious barrier frustrating structural adjustment and reform. Under such rigid labour market conditions in advanced countries, the relatively low-income and low-skilled labour that mostly engage in industrial and low-tech sectors are unable to compete with foreign labour in the newly industrializing economies working under more flexible conditions. Workers in developing countries have also become increasingly active and competitive in high-tech industries and high-value-added service sectors. Hence, protected labour in industrialized countries faces a higher risk of unemployment vis-à-vis the more dynamic workers in the process of globalization and technological innovation, and the result is economic polarization.

What, then, is the fundamental cause of the problems? It is the egalitarian ideology and the resulting egalitarian democracy that seeks economic equality, which has for a long time paved the way for rigidities in the labour market, that works against the market's discrimination function. Under egalitarian democracy, labour has been regarded as the class that is to be protected from capital. This has given rise to 'management democracy' which seeks equal rights for capital and labour in management, a popular reform agenda for corporate governance. Needless to say, it has contributed to rigidities in the labour market.¹³ In fact, such egalitarian economic policy regime under egalitarian democracy prevents the market system from fully taking advantage of the enlarged market and the technological innovation that helps to improve living standards for all. This is why we are witnessing the downward equalization of living standards in many developed economies in recent decades. Hence, the capitalist economy under such egalitarian democracy is not the cause of economic polarization, but rather, the cause is the egalitarian ideology that supports egalitarian democracy, with its roots in the socialist ideology of class struggle, that is responsible for the economic polarization and growth stagnation.

Indeed, seen from a broader perspective, the capitalist market economy has long been a victim of egalitarianism, which has mitigated economic discrimination and is now responsible for economic stagnation not only in developed economies but also in developing economies. To repeat: Western developed economies since the post-war period have pursued to a varying extent the so-called 'revised capitalism' and/or 'welfare state'. This leaning towards social democracy has created policies that seek economic equality for all, not only by helping the economically weak but also by democratically exploiting* those who help themselves, in the name of income redistribution and shared growth. In a sense, the history of political economy in the post-World War II period has been one of strengthening economic

egalitarianism, which has demotivated people in terms of their will to help themselves, and has allowed socio-economic sabotage by the general public. Not limited only to developed economies, this has become widespread even among the social democratic developing economies. It goes without saying that the issue of the labour market mentioned above is only the tip of the iceberg of the problems associated with egalitarian political institutions. The new positive theory of political economy suggests that the end result of such a regime will be economic stagnation and the downward economic equalization of income and wealth, as everybody shies away from market competition under the state's protection. Eventually everyone will be stripped of the will to exploit the very merits of capitalism: globalization and innovation. The result? Everyone gets poorer, except for a few who are able to hold on to their riches. Note that the socialist economies now all collapsed exactly because of this kind of problem (except for North Korea, so far).

I have argued that the true cause of the so-called economic polarization cum growth stagnation is the egalitarian ideology and egalitarian democracy, and not the capitalist market economy, nor globalization, nor technological innovation. This is the real irony of the egalitarian economic policy regime under egalitarian democracy which has hurt the lower-income and underprivileged people whom it had intended to help. Note also that this is a general feature of egalitarian democracy, to a greater or lesser degree, in the post-World War II period by sabotaging the society as a whole and leading it to economic polarization cum growth stagnation. It is worth mentioning again that educational support to empower people, which it is argued by neoclassical economics thinkers is the key factor for economic growth, has not been spared from the wave of egalitarianism, and therefore it is not surprising that this too has failed to deliver the promise of development for all. Be that as it may, the trend of economic polarization cum growth stagnation continues under the grip of egalitarianism.

8.4.4 Escaping Egalitarianism

The one man, one vote system underlying modern-day democracies tends to adopt an economically egalitarian policy regime by majority rule that reflects the majority's ideal of economic equality. Democracy that seeks equality not only of political rights but also of economic outcomes is incompatible with the market economy, which creates the economic differences required for economic development. This is in fact an important reason why it is difficult for democracy and the market economy to work together for economic development.¹⁴ Western economies have made tremendous economic progress since the Industrial Revolution with the

free market economy and the ideology of liberal democracy, but in recent decades many have turned to egalitarian democracy driven by egalitarianism. Hence, the ideology of equality seems to have dominated the ideology of liberty, and this has driven societies into an egalitarian trap that has brought with it economic polarization and stagnation.

Therefore, it is of paramount importance that global economies find a mechanism to contain democracies within the political arena so that it does not unduly interfere with economic policy-making, especially in terms of its egalitarianism, if there is any hope to turn the economy back onto the path of sustainable development. This is especially important because much of the world now favours political institutions that seek the ideal of an economic egalitarian society beyond the free society. The new General Theory of Economic Development suggests that the adoption of market democracy is a viable solution to the problem of economic polarization cum growth stagnation, but history tells us that chances of success are slim unless the market democracy is led by an economically discriminatory political leader or leadership who understands that the only solution to this problem is to reject egalitarianism in economic institutions and economic policy-making. Only economically discriminatory leadership can steer a country in the right direction, by establishing economically discriminatory political as well as economic institutions. In any case, one needs to note that the market economy allowing inequality is not the Devil as much as democracy seeking equality is hardly God.

8.4.5 A Few More Words on the Nature of Economic Inequality

Be that as it may, there is more to think about as regards the nature of economic inequality. I have said all along that there are forces that generate economic inequality in the market; or more specifically, that economic discrimination, which works positively for economic development, is intrinsically tied to differences and inequalities. From this perspective, one can define the level of economic inequality as commensurate with differences in the optimal reward, according to differences in economic contribution, and therefore compatible with sustainable development. Economic inequality, however, tends to be higher than pre-development levels of inequality implied by market forces alone because of market economic discrimination failure. As I have already mentioned at considerable length, the economic discrimination role of the government as well as corporate firms makes up for the deficiency of actual pre-development levels of economic inequality by introducing enabling institutions. The actual level or extent of inequality is complex and depends generally on the society's views regarding fairness of income and wealth distribution, which in turn

depends on informal institutions such as culture, historical tradition, and so on. As a society's culture is inclined to become more egalitarian, the level of acceptable inequality perceived by that society tends to become lower, and vice versa.

Having discussed at length the relationship between economic inequality and development, I will now say something about traditional queries relating to this intricate relationship. A common traditional concern is what economic development can do about economic inequality. Does economic development worsen or lessen the degree of economic inequality? This question was brought to the forefront in the growth literature with Simon Kuznets's discovery of an inverted-U shaped relationship between income distribution and economic growth. Recently, it has become a general consensus that high economic inequality is bad for economic development, because inequality will create social conflicts.¹⁵ Nothing is mentioned, however, about how much inequality can be tolerated. On the contrary, the new General Theory of Economic Development strongly suggests that such questions do not make any sense, and are in fact circular reasoning because neither development nor inequality are mutually independent. Rather, economic development and inequality are endogenously determined and driven largely by the discrimination function of markets, government and corporations. Akin to the 'chicken and egg' question, it is impossible to tell which precedes the other: development or economic inequality. It could be the case that they are probably just two sides of the same coin.

Furthermore, there is the question of what the government should do about economic inequality. Whatever it does, bear in mind that the government should not try to lessen the actual pre-development level of inequality, but rather should allow it to increase towards the level necessary for development. This is the unavoidable truth that follows from the logic of the arguments laid out in this book. While it may sound quite embarrassing to the many proponents of social democracy and even the welfare state, if the government tries to lessen the actual level of economic inequality below the level that is conducive to economic development, then the market may revolt by accelerating the process of downward economic equalization, with the majority of the population becoming worse off except for a few. Interestingly enough, such market-driven inequality under the artificial equality constraints imposed by the government seem to converge towards the downward equalization spiral without growth that we have been worried about in recent years. Such a society subjects itself to a deindustrialization process by means of which it may bring the society back to a pre-capitalist, agrarian economy as demonstrated with the collapse of communism in the 20th century. In sum, once the society

gets stuck with a less than optimal reward system driven by government egalitarian intervention, the removal of motivation and/or incentives for development will spur a downward economic equalization process which, even more importantly, cannot be easily stopped or reversed due to path-dependence and inertia. This is what is happening now, globally. Eventually we will all become equally poor.

NOTES

1. For example, see Barro (1997) for the cross-country empirical analysis on the correlation between democracy and growth.
2. It is important to note that the concept of political economy herein is different from the Marxian political economy that is based on class struggle, but not much different from the classical meaning of political economy used by the classical economists.
3. The insights in this chapter are from North (1990, 1992a, 1992b).
4. In fact, a decade ago, I raised this issue to bring political institutions into the domain of the theory of economic development under the same perspective of the new General Theory of Economic Development (see Jwa and Yoon, 2004a, 2004b).
5. See North (1990, 1992a, 1992b) for recognition of the importance of the ideology.
6. One can also find the similar points in Hayek (1982, Vol. 2).
7. In fact, Korea's traditional development-unfriendly ideology, historical tradition and cultural values were formed under highly extractive political as well as economic institutions during the 500 years of the Chosun Dynasty, which had worked against the hard-working people.
8. German unification policy under the Cole government turned out to be egalitarian by adopting the one-to-one currency exchange rate and providing almost the same level of social welfare to the East, disregarding the comparative economic strength of two Germanys. These policies were said to be inevitable for political reasons, thereby hurting the post-unification German economy for several decades.
9. See for example El-Erian (2010). Cowen (2011), Summers (2016) and Gordon (2016).
10. See Acemoglu and Autor (2011).
11. See Mankiw (2013) for the related issues and controversies.
12. This is the most commonly mentioned scenario, along with the mainstream neoclassical view (see, e.g., Acemoglu and Autor, 2011; Summers, 2016; Gordon, 2016).
13. See Dahl (1985) for the argument of the management democracy.
14. Fukuyama (1989) argued that democracy and the market economy were the end of history. But it is still unclear whether they can go along hand in hand with each other without any serious conflicts.
15. For this argument, see Stiglitz (2012) and Piketty (2014).

9. Conclusion

This book has come a long way to present a new General Theory of Economic Development. As seen through the lens of the economic discrimination function of the market, many important and interesting propositions and implications which have been misunderstood, downplayed or totally ignored in the existing literature can be rediscovered. As a short conclusion, I firstly summarize the notable key innovations in the developmental theory and policies, and some of the most notable implications which are distinctively different from the existing paradigm. Then, based on the new General Theory of Economic Development and implications, I attempt to dispel some of the myths about development raised in Chapter 2 and finally conclude the book by discussing how the new General Theory may be put into perspective.

9.1 THEORETICAL AND POLICY INNOVATIONS AND IMPLICATIONS

9.1.1 What is Economic Development?

Economic development is the emergent behaviour of complex economy subject to the second law of thermodynamics. In this process, the economy goes through the order-transformation from the mail coach-producing economy to the railway-, automobile-, aeroplane- and spaceship-producing economy, and thereby becomes increasingly complex. The creation of synergies among the members of economy through the open non-linear interactive process or, in other words, the propagation of the development genes by replication into the whole economy, is involved in the order-transformation of the complex economy, where the synergy or development gene is defined as synonymous with the success know-how of development. The key aspect of the economic development here is not only the quantitative but also, more importantly, the qualitative amplification of the economic dimension.

9.1.2 Function of Markets, a New Thinking

Markets are the epitome of economic discrimination by selecting the market winners and providing more resources to them, and thereby motivate all the members of the society to strive for economic success. All the participants in the markets always try to select the best performers by voting with their purchasing power and therefore work collectively, just like a God who helps those who help themselves. As a result, markets create a lopsided phenomenon of economic development, economic inequalities and imbalances. As a corollary, if the markets are prevented from creating such lopsidedness, then economic development will not ensue. This dynamic interpretation of the market's function is totally new and different from the existing perspectives, and is one of the most notable innovations of this book.

Humans as economic agents in the markets not only live with the prospect of being economically prosperous and moving ahead of fellow neighbours, but also live under continuous pressure of falling and lagging behind their neighbors economically. The prospects as well as pressure of economic discrimination have been the fundamental source of motivation to strive for economic success, thereby initiating the process of a dynamic new order of transformation of the complex economy. Here comes the most important proposition of this book: that what I argue to be the fundamental function of the market - economic discrimination — becomes the most powerful mechanism for economic growth and development. It follows as a corollary that if any institution, policy and/or mechanism is to be any good for economic growth and development, then it has to be economically discriminatory and society must endure the accompanying economic inequality not as a possibility but rather as a reality, whether we are speaking of a free market with economic freedom and private property rights, market competition, invisible or visible hand, spontaneous market order, a democratic or authoritarian political regime, revised capitalism, social democracy, socialist market economy, or anything else for that matter. Economic progress is impossible unless the principle of economic discrimination is upheld and the resulting lopsided nature of economic transformation is accepted.

9.1.3 Market Failure: Synergy or Evolutionary Failure

The market is a necessary mechanism for economic development but it is not enough on its own. Economic development is sparse with markets alone, because the emergent or evolutionary process of development that relies on the creation of synergy or on the replication of the

developmental gene (meme), tends to fail; which may be called emergence or evolutionary failure. Markets always fail, in the economic sense, in fully rewarding the sources of synergy or the developmental gene. The successful agents are subject to free-riding by fellow members of society because the market incurs positive transaction costs that make it impossible to correctly evaluate contributions and therefore is unable to solve the free-riding problem. The market for synergy or the developmental gene fails in continuously reproducing the sources of synergy or the meme, respectively. In other words, the success know-how for economic development fails to emerge on a large scale or for an extended period of time. As a result, the complex economy fails to emerge or to evolve or develop. Economic development cannot be expected to emerge spontaneously if it is left to the imperfect market process, which is destined to face economic discrimination failure.

9.1.4 Corporate Firms as Market Expander into the Uncharted Seas

The important contribution of the new General Theory of Economic Development is to integrate the role of corporate firm systematically into the main body of economic development which the mainstream neoclassical economics has treated somewhat casually as an appendix to the main body of the argument, or as substitutable by the production function. Furthermore, the economic discrimination lens of the General Theory of Economic Development helps us to understand clearly how economic development is intrinsically related to the birth and growth of business corporations. As mentioned, the corporate firm steps in to amend the market's failure, taking advantage of its vertical command-and-control system and thereby avoiding the kind of transaction costs borne by the market; in spite of the newly incurred positive organizational costs. Be that as it may, the corporate firm, particularly in the form of the joint-stock limited liability company, can and usually does expand the extent of the market into uncharted waters by expanding businesses into those high transaction cost activities, which is a totally new perspective different from the mainstream theory of the firm as a substitute for the market. The corporate firm as a market creator or expander is also an economic discriminator within itself as well as *vis-à-vis* transaction counterparts, and thereby motivates all economic agents to strive for economic success, not unlike what happens with the market. Needless to say, within-firm economic discrimination is a necessary condition for corporate success. Seen from this new perspective, not only the markets but also corporations are and should be important mechanisms of economic discrimination if they are to be good for economic growth and development.

9.1.5 Markets and Corporations are Not Enough for Development

Be that as it may, the corporate firms are also subject to the free-riding problem by fellow corporations. The creation of leading corporations is uncommon because of free-riding, and this is not aided by the market, due to its own failure in resolving the free-riding problem arising from positive transaction costs. Good corporations are therefore rare entities that can only arise under a business environment that provides fair and sufficient rewards as well as social recognition to high-performing, successful corporations. While both the market and also the corporate firms are necessary parts of the development puzzle, economic development may not emerge with these alone.

In sum, the private sector's efforts alone are not enough for the emergence of economic development because the markets are unable to economically discriminate between individuals as well as corporate firms correctly, that is, to reward each to exactly match their economic contributions, due to positive transaction costs involved in this matching game. Therefore, it is not surprising to find that economic growth and development is not achievable by every nation at all times, unless the government is able to revive the private sector's imperfect economic discrimination function.

9.1.6 Economically Discriminating Government is Pro-Development

This leaves space for the necessary role of the government for economic development, which is to economically discriminate between individuals as well as corporate firms and thereby effectively fix market discrimination failure. The government should refrain from intervening against the economic discrimination function of markets as well as corporations if it hopes to stimulate economic growth and development. The government should always exercise economic discrimination — that is, always help those who help themselves — just as markets and corporate firms are doing for economic development.

9.1.7 Politics as Key Promoter or Stumbling Block

Politics, including political ideology, the democratic system and political leadership, is an important institutional promoter for or constraint on economic development. If politics is inclined to tolerate the level of economic inequality resulting from the market's discrimination function and required for economic development, then it can be labelled development-friendly. This is also true for political ideology, democracy and political leadership: they can be development-friendly only if they endorse

the market's discrimination function and the accompanying economic inequality.

In this book, I have established a positive theory of political economy which marries the normative science of political economy with the reality of economic development to provide a theoretical framework of institutional choice for development-friendly politics. It should now be clearly understood why politics, specifically modern-day democracies, can often become stumbling blocks to development despite the promises they make. The key message here is that democracies become development-unfriendly unless they can generate a self-help ideology among the majority of people by adopting and enforcing economically discriminatory economic institutions and policies for a sustained period. It turns out that the most important success element in this ideological, political and eventual economic transbination has been political leadership that believes in the market function of economic discrimination.

9.1.8 Economic Discrimination as Policy Innovation

The government turns out to be a necessary component for economic development, together with the market and corporations, forming the 'holy trinity'. The government can act as a last resort to help remedy the free-riding problems I have discussed by setting up institutions and policies that economically discriminate between economic agents depending on their economic performances. Policy for economic development should be translated to reinforce the market's discrimination function which is often too weak to spark economic emergence. The government should certainly avoid intervening against what the market would do. This is a warning to both the strong pro-government camp that is happy to mingle with the market's allocation function, and the modern-day democracies that too enthusiastically seek economic equality and, together with market proponents, often argue against government intervention. The important precondition for successful economic discrimination policies is to discriminate (help those who help themselves), based on actual *ex post* market performance, where the markets are the most important providers of performance information. This is, of course, the necessary condition for successful industrial policies as well as for sustainable welfare and empowerment policies, as discussed at length in this book.

9.1.9 Economic Inequality and Economic Development

Seen through the lens of economic discrimination, the fundamental driving force of economic growth and development is not economic

freedom or individual property rights, as proposed by free market proponents, but economic differences or inequality. The free market system aided by private property rights is in fact an important instrument for creating economic inequality, but will not work very well for economic growth and development unless the resulting economic inequality is acknowledged. In this regard, the reason why the free market system has been good for growth and development is because it can help to create economic differences more effectively compared to the pre-market, Stone Age communal society or the pre-capitalist agrarian society, or in the modern era, the now deceased socialist economies. Furthermore, as mentioned in Chapter 3 and elsewhere in this book, a secure property rights system does not automatically guarantee economic development. Rather, it can be important for economic development insofar as it facilitates or amplifies the market's economic discrimination function. Seen from this perspective, economic freedom and equality are incompatible despite the fact that it has been argued that political freedom and equality are the two wheels of the cart of modern-day democracies. On the contrary, economic freedom and inequality are more compatible. In this regard, economic inequality even beyond economic freedom or individual property rights per se is a fundamental driving force for economic development.

Here arises a dilemma faced by the modern-day democracy which seeks not only political but also economic equality (of outcomes or opportunities beyond equality before the law). Democracy has a bad habit of announcing economic equality and balances as a requirement for economic growth and development but, alas, those ideologies and the resulting institutions and policies have been disappointing despite their good intentions. We are warned that The road to the hell is paved with good intentions. * My remedy to this dilemma is to apply the economic discrimination principle - more specifically, to help those who help themselves - to social policy, empowerment policy and all other supportive policies, not to mention economic development policy, thereby minimizing the possibility of sabotage or moral hazard on the part of the policy beneficiaries. Again, economic discrimination is based on performance and as such is an instrument that establishes the 'dispensation of justice'

In addition, as seen through the lens of economic discrimination, the debate of equality versus inequality or balanced versus unbalanced growth has been totally misguided under egalitarian political ideology. The unequal or unbalanced nature of economic development is not a matter of policy choice but, rather, a natural consequence of markets. Unless one can avoid private choice in the market, as in the socialist economies, the public argument for economic equality or balance will not be realized in the market. Economic inequality and imbalances are inherent in

economic development. Development cannot be possible if the developmental process is deprived of its lopsided nature.

Furthermore, not unrelated to this is economic power concentration. The argument in favour of economic discrimination may be in danger if economic development is wrongly linked with what might seem like unjustifiable artificial economic concentration. While the front-runners in the economy serve, without receiving their full due rewards, not only as role models but also as the source of new knowledge, of new know-how and of positive synergies as they interact with others in the economy, it is easy to overlook the enormous benefits that they bring and to begin worrying about economic concentration associated with economic discrimination as something unjustifiable, terrifying and undesirable. As I have argued, this perspective acts as a huge stumbling block to economic development in the modern democratic era. It usually takes some political bravery to go against such a popular but unfounded ideology of economic equality for all, which is antagonistic to economic concentration beyond the monopoly concerns.

9.1.10 Democracy and Economic Development

The debate on which comes first, democracy or development, has been overly influenced by political ideology, or more specifically, democratic ideology. The new General Theory of Economic Development as far as economic growth and development is concerned tells us that the type of political regime may not greatly matter as long as economic discrimination is upheld in economic policy-making and implementation. Economic progress is possible as long as governments nurture institutions that embody economic discrimination. It is now possible to explain why and how politically as well as economically less free countries can sometimes achieve economic development, and why and how freer countries can underachieve as far as economic development is concerned. The politically and economically freer countries can falter if they negate market outcomes, specifically by trying to mitigate economic inequalities by reallocating incomes and resources more equally by government force; while the less freer countries can develop economically if they consciously reinforce the weak market's economic discrimination function. One can even go one step further to argue that any country where economic freedom, and perhaps also political freedom, is relatively limited can achieve economic development if it adopts an economically discriminatory policy regime, as was the case with a number of authoritarian development states such as the nineteenth-century Western nations and Japan, Korea in the 1960s to 1970s under Park Chung-hee, China since 1978 especially under Deng

Xiao Ping, Singapore since the 1960s under Lee Kwan Yew, and so on.¹ In this regard, democracy may not be a necessary precondition for economic development.

However, one should be careful not to commit the naive argument attributing the 'developmental miracle' to a strong authoritarian regime, which would imply that a non-democratic political regime is a necessary condition for development, for example when referring to the East Asian miracle. The General Theory of Economic Development shows that such an argument cannot be true. While it does not preclude the possibility that an authoritarian regime may probably be of some help in carrying out the economic discrimination paradigm, it does not endorse such politics. Furthermore, most non-democratic countries in the post-World War II era failed to deliver economic prosperity, except for a few, which implies that the success factor lies somewhere else and not in the political regime per se, which the General Theory of Economic Development identifies as the economic discriminatory policy paradigm.

In addition, concerning the possibility of a potential conflict between the economic discrimination-led economic developmental paradigm and democracy, this may not be such a fundamental problem as one might initially think, if one understands the true nature of economic discrimination correctly, such that it is in fact the basis of establishing economic justice or, more specifically, what is known as 'the dispensation of justice'. If economic discrimination-led development is essentially consistent with justice, why should there be any conflict between economic discrimination and democracy which must eventually seek justice for all? The issue of democracy and economic development now may be rephrased as 'equality before justice or justice before equality*', rather than democracy before development or development before democracy. Be that as it may, justice before equality may be a precondition for economic development.

9.2 DEMYSTIFYING ECONOMIC DEVELOPMENT

The new General Theory of Economic Development now provides the arsenal to tackle the long-held myths on economic development discussed at the outset of this book, and I try to dispel them here. Of course, some have already been dispelled in the discussions above.

Myth 1: 'Economic development is achievable by all nations*. The new General Theory of Economic Development says that economic development is achievable only by those nations which adopt economically discriminatory economic institutions and policy regime.

Myth 2: 'Economic development requires balanced growth*. The new

General Theory of Economic Development says that economic development cannot be divorced from unbalanced growth.

Myth 3: 'Inequality is a major obstacle to economic development'. The new General Theory of Economic Development says that the opposite is probably true: economic inequality naturally arising from economic discrimination is a precondition for development.

Myth 4: 'Economic policy should avoid ideological biases'. The new General Theory of Economic Development says that economic policy should resist egalitarian ideology and adopt an ideological stance conducive to economic discrimination and economic development.

Myth 5: 'Democracy is a precondition of development'⁵. The new General Theory of Economic Development says that development probably does not depend much on democracy, but on economic inequality created under conditions of the economic discrimination exercised by the holy trinity of economic development - market, corporation and government.

Myth 6: * Prosperous neighbours are bad for development'⁵. The new General Theory of Economic Development says that having a prosperous neighbour is good for your own development, placing Karl Marx on his head.

Myth 7: 'Markets are the elixir of economic development'. The new General Theory of Economic Development says that markets alone cannot be the elixir of economic development.

Myth 8: 'Markets versus governments: should they compete against each other?*' The new General Theory of Economic Development says that both are important, and together with corporations constitute the 'holy trinity'⁵ of economic development.

Myth 9: 'Negative role of corporations in economic development*'. The new General Theory of Economic Development says that the corporate firm is a necessary entity for economic development; without the corporate firm, the capitalist economy will revert back to an agrarian economy as was seen with the transitional economies which had been under communism and socialism.

Myth 10: Industrial policy is unfair practice'⁹. The new General Theory of Economic Development says that industrial policy should be pursued at the corporate level and is not distortionary if it follows the principle of market performance-based, economic discrimination supportive policy.

Myth 11: 'Economic development is the accumulation of a nation's resources'⁵. The new General Theory of Economic Development says that economic development is a complex order-transformation process, emerging and different from the simple addition of resources.

9.3 GENERAL THEORY OF ECONOMIC DEVELOPMENT IN PERSPECTIVE

Finally, I now place the new General Theory of Economic Development in perspective: firstly, the new General Theory of Economic Development is compared to and shown to be an improvement upon existing allocation economics; secondly, I discuss implications of the General Theory of Economic Development on macroeconomics theory and policies; thirdly, I justify why I claim the new General Theory of Economic Development to be a general theory; and lastly, I argue that I now have paved the way for a true 'capitalist manifesto'.

9.3.1 Developmental Economics beyond Allocation Economics

Once seen from the order-transformation perspective of economic development, one can easily see what the main difference between the new General Theory of Economic Development and the mainstream neo-classical economics is, and what has been the problem with the policy advice to the development-seeking economies all along. An example of market-centric popular policy advice without an appreciation of order-transformation is to let the market maximally utilize your comparative advantage given your resource endowment, and by division of labour and specialization, economic growth should spontaneously ensue. Note that there is no reference to structural transformation. Therefore, following this advice will probably increase the quantity (number of wagons), but will fail to upgrade the economy to a higher-order economy. This can be called 'allocation economics', which studies how to allocate given resources to some given known alternative ends, as implied by the definition of economics by Lionel Robbins (1932). However, once the new perspective on development is considered, then the objective is not statically defined as an existing set of given ends, but is continuously changing and redefined into a new set of unknown and uncharted ends of a higher order. Here, the critical implication is that the government and business leaders need to introduce new, never-before-attempted industries, such as railway, automobile, aeroplane and/or spaceship industries, for continuous economic development. Then the question is whether the allocation economics, without a clear concept of order-transformation, can provide appropriate policy suggestions. As already stated in the previous chapters, such neoclassical allocation economics is an order-predetermined economics, and as such cannot handle developmental issues.² The new General Theory of Economic Development is therefore a truly 'developmental economics' that incorporates order change into its conceptual

framework. To see this point more clearly, one needs to look at issues from actual policy prescriptions.

Interestingly enough, sector-specific industry promotion policy under the so-called infant industry promotion policy, import-substitution policy or industrial policy, has been largely discredited by mainstream allocation economics as well as banned by world economic organizations such as the World Trade Organization. However, order-transforming economic development policy cannot be any different from such discredited 'old-fashioned' policies without which development cannot take place. If any country wants to transform itself from an agrarian economy to an industrialized and knowledge-based economy, it must promote the growth of new industries for which, however, the concept of the market seen only from the perspective of allocation economics will not be of much help, as it will do no better than prescribe that a country stick to its comparative advantage and continue expanding its 'wagon' economy without any real order-transformation.

The new General Theory of Economic Development reinterprets the market as a mechanism of industrial policy always helping the best or better market performers based on their actual market performance, which is nothing more than economic discrimination. Based on this logic, the role of the government in economic development is also deduced to be, similarly, an economic discriminator that augments the market's imperfect economic discrimination function. History has shown that the already developed or successful catch-up economies did all turn out to be beneficiaries of such 'outdated' policies, to differing degrees. In this regard, the General Theory of Economic Development in fact amounts to reviving the 'old-fashioned' policies, already declared 'dead', with the economic discrimination policy paradigm. The mainstream neoclassical economics amounts to allocation economics, which studies efficient resource allocation and seems to fit better for an idealized economy which is already fully developed without need for any real order-transformation. If this is true, why does anyone bother with the infant industry promotion, import substitution or industrial policies? In a world of suffering, an imperfect world, then the economic discrimination policy paradigm for order-transformation in order to develop the economy a step closer to nirvana becomes truly relevant. Here the economic discrimination interpretation of the market function is a key feature of the new 'developmental economics*' by which it can be distinctively differentiated from "allocation economics*", although allocation economics is not altogether dismissed and its contribution to our understanding of the workings of the economy is acknowledged.

9.3.2 Implication of General Theory of Economic Development on macroeconomic policy

Based on the market-centric view that sees markets as a level playing-field where relative prices are consistent with comparative advantage, thus providing an optimal structure for all agents, conventional macroeconomics has taken a somewhat cautious approach to avoid distorting relative prices, preferring macroeconomic policies to become 'neutral' or⁴stability-seeking⁵, even to the extent that not only monetary policy but also fiscal policy, not to mention industrial policy, have been adopted with some suspicion and caution. It is now a proposition pretty much well received in modern macroeconomics that monetary policy is neutral. That is, while there are still differences of opinion on the short-run effect among the different approaches (for example, the neoclassical macroeconomics adheres to the neutrality of money in the short run under rational expectations; while Keynesian macroeconomics preaches some real effects of monetary policy at least in the short run), in the long run, however, monetary policy does not affect real variables via relative price changes.³ Be that as it may, broadly speaking the current state of macroeconomics has evolved to be consistent with the market-centric view.

However, as I have shown, the new General Theory of Economic Development reinterprets markets in the capitalist system as an unlevel playing field that is inherently unfavourable to synergy creators, and hence arises the need for government policies that reinforce economically discriminating market institutions, including corporations. Economic discrimination works directly at the micro level, boosting individual agents' incentives and motivating them for 'self-help'.

What about macroeconomic policies? What is the role of macroeconomic policies in the new General Theory of Economic Development? Although little has been said about macroeconomic theory, as this is not the focus of the book, I believe that there is no reason why macroeconomic policy should not be consistent with economic discrimination. In fact, although I fully acknowledge the role of anticyclical macroeconomic policies and the independence of central banks as the nation's monetary authority, in order to revive or sustain economic development, macroeconomic policies can strategically supplement the economic discrimination function of markets, corporations and the government. This argument can be especially true when the economy is developing or in stagnation and requires strong policy support to promote economic development or to lift it out of economic depression and crisis.

Be that as it may, I would like here to point out a peculiarity as to how macroeconomic policy has been practiced, especially in the developed,

industrialized countries. Basically, we observe especially during economic crises that all too often policy-makers and governing institutions tend to hide behind ‘neutral’ or ‘stability-seeking’ macroeconomic management tools, which we have reason to believe have little or no permanent effect on the real economy and hence on economic development.⁴ The real sources of current economic problems, as I have repeatedly said, are egalitarian-seeking policies and institutions, and not ‘neutral’ macroeconomic policy per se. Furthermore, what we have in the financial sector is the blunting of economic discrimination by so-called ‘financial democracy’,⁵ which again has opened the gates of egalitarianism to flood the financial sector. The result, unsurprisingly from the General Theory of Economic Development’s point of view, is financial crisis.⁶

Recalling the experiences of Japan, Korea and China, when economic discrimination was central to their economic take-off, even the functions of the central bank were discriminatory under the command of discriminatory leadership. Although in the modern era it may not be easy to call for discriminatory monetary policy, this should not be a reason for accepting egalitarian policies in the first place and then blaming economic problems and failure on macroeconomic policies when the expected results are not forthcoming. The point is that, in order to achieve and sustain economic development, macroeconomic policies such as monetary as well as fiscal policies can all be used in a non-neutral manner to supplement or complement the underlying discriminatory socio-economic policies that seek to establish the proper incentives for change and transformation.⁷

9.3.3 Why the General Theory of Economic Development is a ‘General’ Theory

This book makes the bold claim to present a General Theory of Economic Development. How is this so? Firstly, the General Theory of Economic Development is ‘general’ as it effectively consolidates the roles of markets, corporations and government into the ‘holy trinity of economic development’ under the principle of economic discrimination, rather than taking an all-or-nothing choice among them. Moreover, the General Theory of Economic Development is able to integrate the diverse competing theories of neoclassical market-centric, government-centric and corporate-centric (including management science) theories, as well as institutional economics, into a holistic body of theory. With the General Theory of Economic Development, we see that the debates of market versus government as well as that of market versus corporate firm have been incorrectly posed as competing hypotheses, while they are in fact all necessary parts of the development puzzle. In the modern era, the economic trinity of corporate

firms, governments and markets, all linked together with their economic discrimination function, is required for economic development, although only a few countries have so far achieved economic development as we know it.

Secondly, the new General Theory of Economic Development is a general theory as it consolidates both Western and Eastern developmental experiences. The economics profession has had a hard time explaining the two apparently different development experiences, arguing that they are of a different nature. The Northeast Asian development has been described as government-centric, and the Western experience as market-centric. However, the General Theory of Economic Development claims that such differences are only superficial and that they all can be explained by the same economic development theory of the 'holy trinity of economic development'. Moreover, the General Theory of Economic Development, with its rich implications for wide-ranging issues, turns out to be general enough to be able to explain both Northeast Asian as well as the Western development experiences, the past as well as the modern development experiences, the capitalist as well as socialist economies' experiences, democratic as well as authoritarian regimes' experiences, and so on.

Thirdly, the General Theory of Economic Development is general as it integrates the diverse economic as well as political economy perspectives of economic development and provides a positive theory of political economy. It argues that the choice of political ideology, political institutions including the types of democracy and political leaderships, for them to be development-friendly, must be accompanied by enabling institutions which embody the principle of economic discrimination. Again, the choice of the political regimes for economic prosperity must abide by the economic discrimination principle.

Fourthly, the General Theory of Economic Development is general as it provides a general principle of sustainable public policy. It claims that the state should apply the principle of economic discrimination to public policies in general; not only economic policies but also social empowerment policies. The economic discrimination principle applied to public policy in general can improve sustainability as it can help to create more value-added by its motivational effect for self-development.

Finally, the General Theory of Economic Development is a general theory as it consolidates economics and business management into developmental economics. Economic development theory and policies cannot stand separately without reference to the role of the business corporation. In fact, the General Theory of Economic Development amounts to saying that the field of business management should play a more active role in economic development. The General Theory of Economic Development

declares that the corporate firm is also advised to exercise and amplify the economic discrimination principle in its internal resource management as well as in its external business relations, for its own success as well as for national economic development. Again, the economic discrimination paradigm could also be an integrating theme consolidating the economic and business management sciences for economic development.

9.3.4 Towards a Capitalist Manifesto

This book has presented a new General Theory of Economic Development that calls into question many of the conventional theoretical and policy myths concerning economic development, and particularly the role of capitalism. In fact, I have reinterpreted capitalism as a 'corporate economy'⁵ in which the corporate firms together with markets and the government work in liaison as engines of economic growth and prosperity, guided by the economic discrimination mechanism, which should be firmly built into all pro-developmental institutions. While the market-centric view favours allocation economics in an ideal-economy setting, in this book I argue that the corporate economy is more relevant to discussing development economics of the real capitalist economy.

By acknowledging that development is only possible for the masses free-riding on externalities or synergies, which by its very nature makes it difficult to fully reward the synergy creators, and thus placing Marx 'on his head' by noting that 'exploitation' may not necessarily be unidirectional (that is, exploitation of workers by the bourgeoisie), the General Theory of Economic Development is founded on economic discrimination as the key mechanism providing the incentives for continued economic innovation and order-transformation for economic development. Note here that the capitalist economy is in fact a system in which having prosperous neighbours is good for development, and not the other way around, as implied by Marxian thought.

This book has especially warned about the adverse effects, such as economic growth stagnation and polarization, resulting from egalitarian sentiments under the influence of Marxist and socialist ideology that have now permeated into nearly every major institution and governance structure under the guise of democracy. Following the recent major economic crises, for example the global financial crisis of 2007-2008, a number of intellectuals have condemned capitalism as the major culprit, calling for revised capitalism and increased regulation of the private business sector. Is capitalism doomed? I believe not. On the contrary, by showing the relevance of capitalism to economic development as well as identifying economic problems as stemming from egalitarian democracy rather than capitalism

per se, the new General Theory of Economic Development argues that capitalism may in fact be the only way ahead for humanity's sustained economic growth and wealth creation.

In sum, together with markets, government and the corporate firms (that is, the 'holy trinity of economic development'⁵) capitalism must be viewed as the only viable socio-economic system consistent with bringing about and sustaining the necessary order-transformational change for economic development. Hence, it is in this sense that by championing capitalism, this indeed may be the beginnings of a 'capitalist manifesto', which claims that the capitalist corporate economy is a creative, shared development system that goes beyond the mainstream view of market-centric allocation economy as well as the socialist view of an exploitative and contradictory system.

NOTES

1. As additional examples may be suggested the early period of the Soviet Union and North Korea, when their economic growth outpaced many capitalist market economies for a while. However, their growth was short-lived and unsustainable because their economic system as a whole was extremely egalitarian or anti-economic discrimination. Without a market system, even if the priority sectors were selectively promoted, the planning process was dictated by egalitarian political considerations and there was therefore no room for a market performance-based differentiated support system to work.
2. One of the early critics can also be found in Buchanan (1964).
3. The neoclassical macroeconomics view is represented by Lucas (1976). A good survey of the neutrality issue can also be found in Lucas (1995).
4. Recently, some authors have also questioned the viability of macroeconomics policy to address real economic problems. See, for example, Summers (2014) and El-Erian (2016). The ineffectiveness or limitation of macroeconomic policy prescription based on the large-scale econometric models was noticed even earlier by Lucas (see note 3).
5. Shiller (2008) proposes 'financial democracy'⁵ as a solution to the subprime mortgage problem. Not only is its meaning ambiguous, but his suggestion tends to present a serious danger of implying political leniency in lending practices, easily hijacked by egalitarian ideology such as the idea of homeownership for all, which I think was the driving force for the weakening economic discrimination in the United States (US) mortgage market, and hence the crisis. Here, 'financial democracy' seems to mean 'egalitarian finance'.
6. Jwa and Hwang (2009).
7. In a somewhat surprising move, the former Chairman of the US Federal Reserve System Ben Bernanke resorted to quantitative easing to bail out some bankrupt financial institutions, by purchasing mortgage-backed securities, and hence helping to restructure the ailing US financial sector as well as the US housing sector. This is in fact an economic discrimination policy. Interestingly, economically discriminatory monetary policy of the successful development cases such as Korea in the 1960s and 1970s also turned out to have real development effects, but without a serious inflationary effect.

Appendix: Analytic framework for macroeconomic growth and productivity analysis for the corporate economy

AI.1 THE BASIC CORPORATE PRODUCTION FUNCTION

The General Theory of Economic Development claims that the capitalist economy can be called the ‘corporate economy’ rather than the ‘market economy*’, because at the centre of its development is the corporate firm. In this Appendix, I provide a general framework for analysing the corporate economy that is implied by the General Theory of Economic Development and will be useful for the analysis of macroeconomic growth and productivity. Although preliminary, the empirical estimation results shown below clearly support the proposition that corporate-led growth is inclusive and shared growth.

I begin with the corporate production function, which constitutes the basic model capturing: (1) corporate-led growth; (2) corporate concentration-led growth; and (3) corporate-led inclusive and shared growth. The corporate-led macroeconomic growth model presented here is comparable to the neoclassical production function model as well as the growth accounting model.

First, taking the basic linear model, we have:

$$gdp = f(CA) = \alpha + \beta_1 CA + \varepsilon \quad (A.1)$$

where:

the constant α captures pure value of the agrarian market economy; gdp is per capita gross domestic product; CA is per capita corporate asset.

Which gives:

$$\frac{\partial gdp}{\partial CA} = \beta_1 \quad (A.2)$$

as the marginal product of CA to gdp . And taking logs gives the elasticity of gdp with respect to CA .

The above specification (A.1) is meant to capture the essence of the corporate economy, showing that national economic performance may be directly explained by corporate growth. Some interpretation of the variables and parameters are in order: Because corporate asset, which is conventionally available from the corporate balance sheet, does not capture labour directly, it is therefore better to use per capita corporate asset (G_4), that is defined as total corporate assets divided by the total population or total labour, in order to avoid inconvenience in the empirical analysis such as having to include labour directly as an additional input in equation (A.1). This of course amounts to assuming that equation (A.1) is a linear homogeneous function with respect to labour input. In addition, total population is preferred to total employees as the divider, so that per capita corporate asset CA is consistent with per capita income rather than per employee income. Furthermore, note that the choice of the deflator does not matter under the linear homogeneity assumption. Taking this into consideration, CA can be used as a proxy for total productive assets per person in use by society, which includes tangible as well as intangible assets such as physical capital, technology, knowledge, and so on, except for labour input.

Hence the coefficient of CA, β_1 , can be interpreted as the marginal productivity of corporate sector as shown by (A.2), which is considered here as a proxy for the overall national productivity and therefore national competitiveness.¹ Per capita gross domestic product, gdp , is interpreted as the perpetual annuity flow of income from the total productive resource stock of the society with the discount rate being the coefficient of CA .² The constant term, a , represents the per capita agrarian product, which in this case assumes a purely agrarian market system with the corporate sector completely absent from the economic system. Lastly, the error term, e , measures the level of efficiency of socio-economic institutions including the political and legal institutions.

The neoclassical production function is usually depicted as $K = f(AT, L_f, T)$ with the underlying implicit assumption that markets produce output Y given the stock of capital (X), labour (L) and technology (T). This is in a sense a 'purely' market production function (whether explicitly stated or not) because it is assumed that goods and services are 'produced' in or in conjunction with the market. Here, because the corporation is decomposed into K, L_g, T , it is given no active role for organizing the resources for actual production. Hence, the neoclassical decomposition follows the reductionist approach of analysing the constituent parts rather than the whole, which is typical of Newtonian science. However, as has been argued in this book, this is inconsistent with the realities of complexity science, which is characterized by its holistic view. Accordingly, it is better to treat

the corporation as an emergent whole that generates synergy effects by organizing resources effectively under its command-and-control structure. Put differently, if the corporate firm is disassembled as in the neoclassical production function approach, its synergy effects may not be captured and are lost.

The new analytical framework considered here is in fact a corporate production function in the sense that it takes the corporation as the essential entity that organizes resources and production under its own management, given the factors of production available in the market or provided by the government. The corporate production function is designed to be a model for analysing the corporate economy. This specification is consistent with the holistic view of the economy and, arguably, agrees with the analysis of the capitalist economy led by corporate growth. More specifically, my new model emphasizes the complexity nature of the modern corporation, while the neoclassical market production function approach merely represents simple economies such as the agrarian economy that do not give due credit to the modern corporation.

A1.2 MEASURABILITY OF FACTORS AND PRODUCTIVITY

Given that in economics there exists considerable controversy over the measurement of the factors of production - namely, capital, labour quality and technology, all of which are fundamental components of the market production function - there is little consensus, if any, about the accuracy and usefulness of the neoclassical market production function approach. Hence the new corporate production function model can help to effectively bypass all these measurement difficulties. I refer here also to the Cambridge capital controversy of the 1960s and 1970s, between the two Cambridges in England and the United States, regarding the measurability and aggregation of capital.³

What about the quality of labour and the level of technology? The economics profession has not reached a consensus regarding their measurement. Be that as it may, the neoclassical growth accounting model with its market production function as the basic framework usually treats the residual term of the market production function, estimated by capital and labour as factors, as total factor productivity (TFP), which is interpreted as the contribution of technology to production. While TFP has been the focal point of the neoclassical growth accounting analysis, it remains somewhat unsatisfactory given all those measurement problems. One wonders how much one may rely on these TFP measurements.

The General Theory of Economic Development suggests that we supplement the existing production function approach by filling the missing link between the diverse factors at the micro level and the aggregate output, by introducing explicitly the role of the corporation as the ultimate aggregator of such diverse tangible and intangible resources into so-called 'corporate asset' as well a coordinator of production. The rest of the treatment is similar to existing production function analysis but the new model of the corporate economy helps to alleviate the burden of aggregation and measurement. Of course, there remains the task of how to improve data on the corporate sector to supplement the empirical analysis for macro-economic growth and productivity estimation by the corporate production function.

A1.3 MORE ON WHY WE USE CORPORATE ASSETS

I mention some additional remarks on the economic meaning of Corporate asset⁵, *CA*. First it should be understood that *CA* is not a measure of total existing stock in the society but, rather, the stock that is actively utilized by the society's productive unit, the corporation. This is a subtle point, but an important one. Even if some resources are useful for production but are not actually utilized by the corporation, then those should not be counted as actively utilized productive assets but can only be said to be 'potentially⁵ productive. Therefore the corporation is seen as an entity that in fact transforms such potentially productive resources into productive resources for actual use. The importance of this distinction between the potentially and actually productive stocks of a society can be easily seen if one understands the nature of the role of knowledge in scientific innovations and discoveries for economic development. Note that even if there are flows of knowledge, or any other potentially productive resource for that matter, they will be of no economic use unless they are transformed into valuable goods and services by corporations.

Moreover, this is perhaps the most important reason for introducing the concept of the corporate economy in the context of economic growth and development. A small *CA* relative to the usual estimate of total stock of potential productive assets, though imperfect, may suggest that the corporate sector does not or cannot fully utilize the potential of the economy, probably due to inefficiencies in the society's institutions such as anti-corporate culture or sentiments, regulations on the corporate activities, and other impediments to an efficient corporate sector. Note after all that corporations are the byproduct of the society's rules of the game.

A1.4 EFFICIENCY OF SOCIO-ECONOMIC INSTITUTIONS

Let us elaborate the error term in equation (A. 1), which reflects the efficiency of the society's socio-economic institutions, which includes the political and legal institutions as well as cultural and other informal institutions. As I have already argued, the corporate firm represented by its behaviour and performance is the outcome of survival by adapting to the surrounding environment, given by the society's rules of the game which consists of both formal and informal rules and constraints. The formal constraints include formally written laws, regulations, and so forth; and the informal constraints include culture, tradition, value systems, convention, political ideology, and so forth, as discussed in Chapter 3. More importantly, and as I have further elaborated in Chapter 8, it is politics which ultimately influences the society's rules of the game.

Here equation (A.1) can be interpreted as providing a convenient framework to analyse the impact on national economic performance of all these institutional constraints collectively. More specifically, the error term is interpreted as the effect on the economy of the institutional environment in general, after taking into account the overall contribution of the society's useful stock of economic resources represented by the corporate asset, CA_j , and which can be utilized as the measurement of the society's socio-economic institutional efficiency including its political institutions. Assumptions regarding the distribution of the error term may also be relevant here. For example, it is usually acknowledged that the impacts of institutional change are a long-lagged process, sometimes expanding over decades or even generations. In this regard the error term, a , may not be independently and identically distributed, but could be serially correlated over time, which would demand more careful analysis regarding the nature of institutional effects.⁴

A1.5 EMPIRICAL RESULTS OF THE ECONOMETRIC MODEL

For empirical estimation I use data of the per capita nominal gross domestic product (GDP) and the income Gini coefficient from the World Development Indicators database, and corporate asset as the outstanding nominal total asset of listed companies' balance sheets from the S&P Capital IQ (all values in US dollars).⁵ Data are for 71 countries over the period 2005 to 2013. The data on the income Gini coefficient, however, are sparsely available relative to the GDP and corporate asset variables, so

Table A. 1 Fixed effects panel estimation (with time dummies)

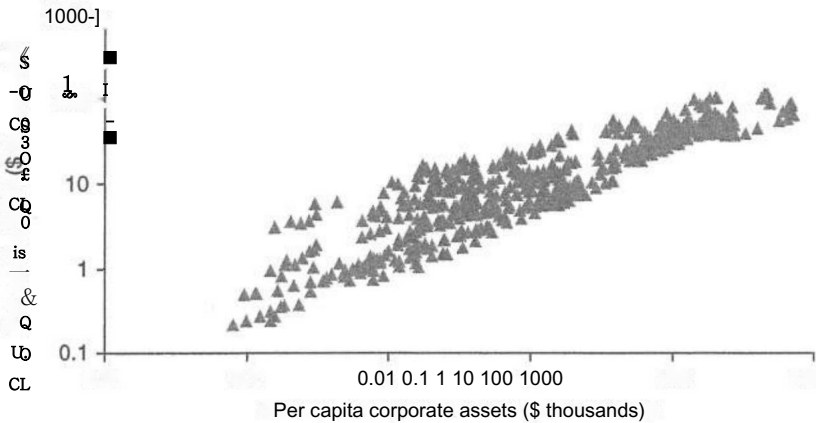
Model	Coefficients	Estimation results
Equation (A.3)	a	5.500
$\ln GDP_{it} = a + \beta_1 \ln CA_{it} + \beta_2 CHHI_{it} + \epsilon_{it}$	β_1	(27.43)***
	β_2	0.390
		(17.27)***
	R^2	0.00002
		(1.74)*
Equation (A.4)	a	49.448
$GINI_z = a + \beta_1 \ln CA_{it} + \beta_2 CHHI_{it} + \epsilon_{it}$	β_1	(13.52)**
	β_2	-1.452
		(-3.63)***
	R^2	0.0002
		(0.97)
Equation (A.5)	a	77.650
$GINI_{it} = a + \beta_1 \ln GDP_{it} + \beta_2 CHHI_{it} + \epsilon_{it}$	β_1	(11.67)***
	β_2	-4.385
		(-6.21)***
	R^2	0.258

Notes:

1. $\ln GDP$ is the natural log of per capita nominal GDP; $\ln CA$ is the natural log of per capita nominal corporate asset; GINI is income GINI coefficient in percentage terms, and; $CHHI$ is corporate sector concentration by HHI method.
2. Values in parenthesis are robust t-values.
3. ***, **, * and $\diamond$ indicate 1%, 5% and 10% levels of significance, respectively.

that when the income Gini coefficient is utilized (equations A.4 and A.5 in Table A.1), the sample size is reduced to 363 data points (from 639) for 66 countries for the same period.

To test the hypotheses that corporate-led and corporate-concentration-led growth correspond to the growth of the capitalist economy, equation (A. 3) in Table A.1 is estimated by fixed effects panel estimation method with time dummies by regressing per capita GDP as the dependent variable on corporate asset and corporate sector concentration variables as explanatory variables in a log-linear form. Corporate sector concentration is measured by constructing a Herfindal-Hirschman index of listed companies' total asset, measuring the corporate sector concentration.⁶ The results are shown in Table A.1. Firstly, the estimate of β_1 is statistically significant and positive, implying that the elasticity of per capita GDP with respect to per capita corporate asset is 0.39, which means a 1 per cent increase in per



Note: Pooled data for 71 countries over 2005 to 2013.

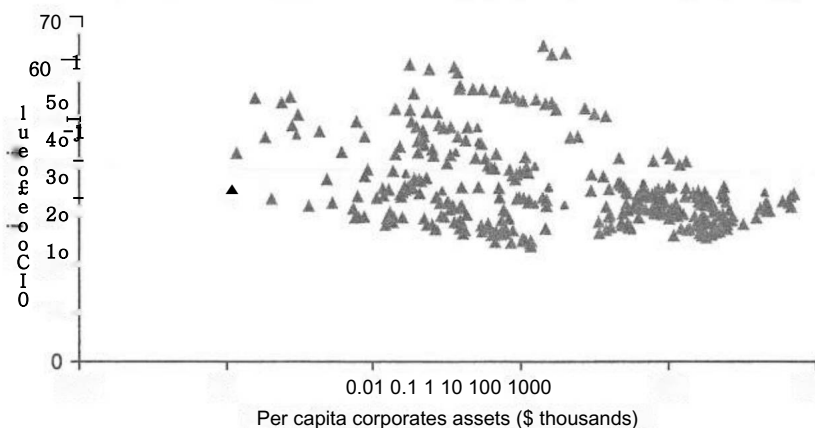
Source: S&P Capital IQ and World Bank.

Figure A. 1 Corporate-led growth

capita corporate asset corresponds to 0.39 per cent increase in per capita GDP on average in the world economy. This is very strong evidence supporting the hypothesis of corporate-led growth, as illustrated in Figure A.1 which clearly suggests a positive relationship between per capita income and per capita corporate asset. The estimated elasticity although high is less than unity, implying that the corporate production function is subject to decreasing returns to scale (as far as the current data set is concerned). Note that the estimated equation (A.3) is in fact the world corporate production function. This result supports the hypothesis of corporate-led growth. Secondly, the coefficient of corporate sector concentration by the Herfindahl-Hirschman Index method (CHHI) is positive although statistically significant only at the 10 per cent level, which is perhaps sufficient evidence in favour of the corporate concentration-led growth hypothesis.

In addition, we may interpret the constant term in the panel estimation as the average effect for the whole sample that remains after removing idiosyncratic effects of individual countries. Taking the exponent of the estimated constant term 5.5 in equation (A.3), we can calculate the average per capita income of an imaginary agrarian economy without the corporate sector at \$245. This estimated level of per capita agrarian income is presumably not far away from what we may expect in reality.

As Figures A.1 and A.2 suggest, it is interesting to see whether the corporate-led growth is inclusive and shared. To test this hypothesis, the



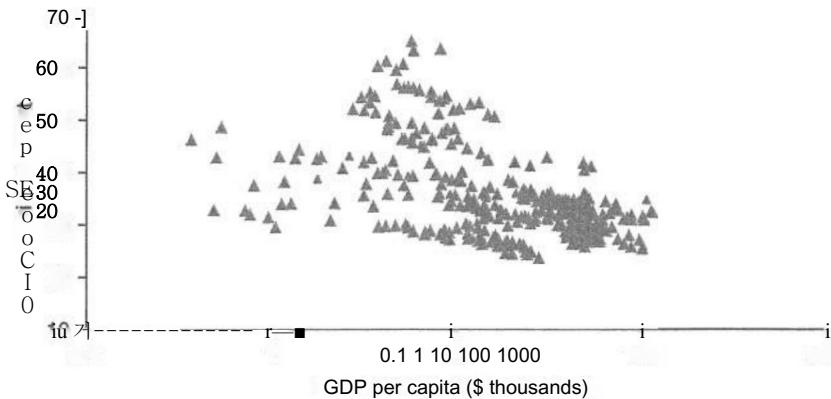
Note: Pooled data for 66 countries for the unbalanced periods over 2005 to 2013.

Source: S&P Capital IQ and World Bank.

Figure A.2 Corporate-led inclusive and shared growth

income Gini coefficient is regressed on the per capita corporate asset and corporate sector concentration variable CHHI in a log-linear form as depicted by equation (A.4) in Table A.1. The result by fixed-effects estimation suggest that a 1 per cent increase in per capita corporate asset is associated with a reduction in the income Gini coefficient by 0.0145, while the coefficient of the corporate sector-concentration turns out to be statistically insignificant implying that it may not improve or worsen income distribution. In addition, the constant term estimate 49.45 implies that the Gini coefficient would be roughly 0.5 for the imaginary agrarian economy stripped completely of the corporate sector.

Finally we can verify the direct relationship between the Gini and GDP growth, while equations (A.3) and (A.4) indirectly imply a negative relationship between them. As illustrated by Figure A.3 and equation (A.5) in Table A.1, a 1 per cent increase in per capita GDP is associated with 0.0439 decrease of income Gini coefficient, which confirms the shared-growth hypothesis under corporate-led growth implied by equation (A.3). This result has enormous implications for the current debate about capitalism and inequality. This finding goes against arguments by some authors that economic growth is usually accompanied by increasing inequality, such that capitalism should be revised because it is somehow flawed and is the fundamental cause of economic inequalities (see Stiglitz, 2012; Piketty, 2014). Furthermore, these findings also imply the need to reconsider the



Note: Pooled data for 66 countries for the unbalanced periods over 2005 to 2013.

Source: S&P Capital IQ and World Bank.

Figure A. 3 Gini and per capita GDP

many existing, diverse findings on growth and distribution issues such as the inverted U-shaped curve found by Kuznets (1955) and others.

Throughout the book I have argued the importance of corporations in the economic development puzzle. A growing corporate sector is what defines the capitalist economy, over and above the agrarian economy that featured for many centuries before the Industrial Revolution. This Appendix has presented an analytical model and found empirical evidence for my claim. Namely, a 1 per cent increase in per capita corporate asset corresponds with a 0.39 per cent increase in per capita GDP, and at the same time a 0.0145 reduction in the income Gini coefficient. I have confirmed that the growth of the capitalist 'corporate economy'⁵ is consistent with inclusive and shared growth, which contrary to the many criticisms and myths, suggests that the corporate firm is indispensable for inclusive shared growth. In short, one dare not speak about the growth of capitalism without the corporation.

NOTES

1. If it is assumed that equation (A.1) is a second-order form as $gdp = a + P[C/1 + P_2G^2 + e$, then the marginal product will depend on CA as $\frac{\partial gdp}{\partial CA} = \beta_1 + 2p_2CA$. But the empirical results below report only the case of a simple linear form, because the data do not support the hypothesis of non-zero P_2 .
2. The present value, A , of permanent flows of incomes can be expressed as follows:

$$A = a/(1+r) + a/(1+r)^2 + a/(1+r)^3 + \dots + a/(1+r)^n = a/(1+r) \cdot (1 - (1/(1+r))^n)$$

$$= a/(1+r) \cdot (1 - (1/(1+r))^{\infty}) = ah$$
, where a = permanent flows of income and r is discount rate. Now, this equation can be rewritten as follows, $a = r \cdot A$, which is the basis for equation (A.1) in the text, and where a can be reinterpreted as annual GDE r as national marginal product, and A as corporate asset, a proxy for the national stock of productive assets.

3. See 'Cambridge capital controversy' in *Wikipedia*.
4. In the following empirical analysis, the results with the pooled cross-section data for eight years clearly show a positive serial correlation.
5. The nationality of a corporation is determined under the condition that the locations of the company's headquarters as well as of its listed market should belong to the concerned country's sovereignty.
6. This is measured by the formula, CHHI is square root of sum of (s_i^2), where s_i is the individual shares of each company's asset in the total corporate assets in the country.

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