(사)한국제도·경제학회

18th International Conference of the East Asian Economic Association(EAEA)

KIEA Session:

Lessons from Korea Economic Development Experience: Past and Future

■ Date: October 21, Saturday, 2023, 11:10~13:10.

■ Venue: Seoul National University,

Building No. 83(멀티미디어강의동 3층), Room A.

(사)한국제도·경제학회

Korea Institution and Economics Association(KIEA)

The Journal published by KIEA:

Review of Institution and Economics

ISSN 1976-3697

제도와 경제

Review of Institution and Economics

(Korea Citation Index (KCI) Journal)

제15권 제1호 (통권 40호), 2021. 2.
Volume 15 Number 1, February 2021

KIEA 한국제도·경제학회

The 18th International Conference of the East Asian Economic Association(EAEA)

- Date: 11:10~13:10, October 21, Saturday, 2023.
- Venue: Seoul National University, Building No. 83(멀티미디어강의동 3층), Room A.

■ KIEA Session: Lessons from Korea Economic Development Experience: Past and Future

<**Presented at The 18th International Conference of the East Asian Economic Association (EAEA), October 21-22, 2023, Seoul National University**>

Korea's Saemaul Undong as a Controlled Economic Development Experiment Merits a Nobel Prize

.

Jwa Sung Hee

This paper evaluates Korea's Saemaul Undong as a "controlled economic development policy experiment" no less favorably than the 2019 Nobel Economics Prize-winning research, the Randomized Controlled Trial (RCT) experiment. Saemaul Undong had adopted a discriminative incentive policy rule defined as "*economic discrimination" (ED)* that helps only those villages that help themselves based on their actual performances. It had successfully driven Korea's now well-known development miracle by transforming virtually 30 million people of all towns in Korea to people with a self-helping mindset within a short ten years from 1970 to 79. The Saemaul Undog turns out to be the pathfinder for modern-day behavioral and experimental economics. In this regard, The RCT fails no comparison to Saemaul Undong in terms of originality, scale, and achievement.

The paper then presents the sustainable model of rural development for poverty alleviation based on the Saemaul Undong experience and a "general theory of economic development" by this author. It specifies the holy trinity of rural development; the rural markets consisting of rural households, the village organizations managed by the village leaders playing the role of entrepreneur, and the government, that need to work concertedly to set and enforce the ED rule. In addition, the government needs to supplement the formal *ED* rule with self-help mindset education for motivation and continuously allocate rural infrastructure and cash-generating projects to be undertaken by the individual villages according to the *ED* policy rule.

Finally, the paper argues that Korea's experiences of successful economic development, including rural development, had been a test-bed for this model and amounts to confirm its empirical validation. The paper concludes that the Saemaul Undong policy and the theory behind it may be more than enough to merit the Nobel Economics Award.

Key words: Saemaul Undong, Economic Discrimination, Holy Trinity Development Model, Nobel Economics Prize.

What makes Possible *Economic Miracle*?: Theory and Experiences

Jwa, Sung-Hee
(Park Chung Hee Foundation)

Presented at the East Asian Economic Association(EAEA) International Conference
Held at the Seoul National University in Seoul, Korea, October 21-22, 2023.

Contents

- Theory: General Theory of Economic Development
- Experiences: Korea, China, US and World economy
- Concluding

Theory: General Theory of Economic Development

General Theory of Economic Development (GTED)(1)

- **General theory of economic development** built on **Economic Discrimination** to address **how to do** rather than what to do.

1) Economic discrimination(ED) is to treat economic differences differently according to economic achievement, thereby incentivizing growth and development and becoming a necessary condition for Economic development

2) Economic Egalitarianism(EE) is to treat economic differences equally or indifferently, thereby weakening the motivation for growth and development and becoming a sufficient condition for economic stagnation if pursued excessively.

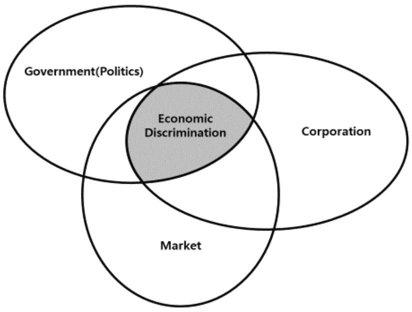
3) ED is the fundamental function of the markets and corporate organizations in the private economy. Corporations are market-expander.

4) The ED institution is for economic justice and the key enabling institution for development.

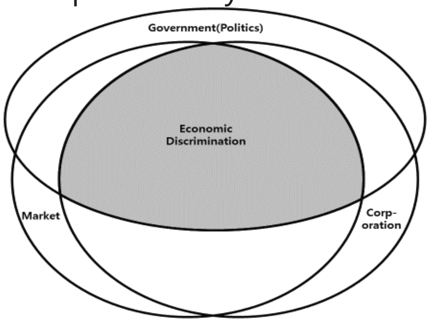
5) The government should respect or even re-enforce the ED institution for socio-economic cooperation, productivity enhancement, economic growth and development.

General Theory of Economic Development(2): Exposition

- The God, the Nature, the Markets, the Corporate firms, the Government help only those who help themselves(ED).
- ED is the key enabling institution for maximizing a complex non-linear order-transforming development from the wagon to railway to automobile to airplane to the spaceship economy.



Economy less friendly to Economic Discrimination and Development



Economy friendlier to Economic Discrimination and Development

General Theory of Economic Development(GTED)(3)

●Implications of GTED

1) Development is a rare outcome of the consolidated effort of the ED by Market, Corporations, and Government.

2) Market alone is not enough for development.

3) Government industrial policy is necessary for development as the ED-based corporate-promotion policy.

4) Private corporations are necessary part of the development process by exercising ED.

5) Private property rights, economic freedom, and even liberal democracy may not be enough for development unless the ED institution is securely in place.

6) Ideology, politics or political-economy regime needs to be ED-friendly by respecting the ED institution if it can promote economic development.

7) Authoritarianism can be development-friendly if it keeps the ED institution in place → **Basis for new theory of positive political economy**

Institutional Economics and other political economy models

- New Institutional Economics (North et. al)

1) Institutions for Economic freedom and Private property rights are prerequisite for free markets.
2) Free Markets are all mighty institution for development.

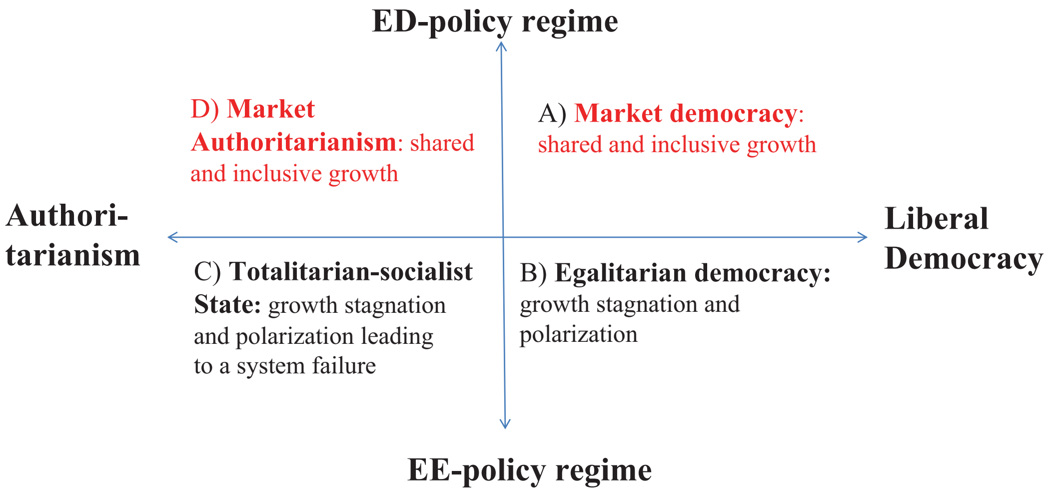
- Inclusive Growth by Inclusive institutions (Acemoglu and Robinson, 2012)

1) Inclusive political and Economic institutions: Friendly for Development
2) Extractive Institutions: Unfriendly for Development
3) An extension of free markets philosophy

→Lacking an enabling institution for development. **How to wake up** the sleeping markets, people or corporations under inertia, path-dependence to move for development?

→Needs an incentive economics for development → **ED incentive**

New Political Economy Theory: Axis of Economic Development



Political Economy regimes and Development experiences

Political Economy regimes	Epoch, state, country, or economy
A: Market democracy (with strong ED regime and corporate economy	Japan & Germany (post-WWII to 80s); USA (during IR* to 20th century but rushing to Egalitarian democracy since noughties); None at present
B: Egalitarianism Democracy (with weak ED regime and corporate economy)	Most EU developed economies under social democracies(post WWII into the present); Most transition economies including Russia; Many South American, African, & Asian economies (most of the middle and low income trapped economies under populist democracy); Japan (since the 90s); Korea (since the 90s); India; USA (since the early noughties)
C: Totalitarian-Socialist State (without ED regime and corporate economy)	Agrarian exchange economies under Malthusian trap; Spain & France(pre-IR*); Socialist economies (20th century); Most underdeveloped countries under socialist dictatorship; North Korea; Venezuela
D: Market Authoritarianism (with strong ED regime and corporate economy)	Venice & Genova (old City-States under the dominance of commercialism); Netherland, England, USA, Germany & Japan (during IR*); Korea, Singapore & Taiwan (during the 60s to 80s); China(since the 1980s)

Note: * Industrial Revolution

Experiences: Korea, China, US and World economy

Korean and Chinese Experiences

- What made Miracles possible?

1) **Economization of politics**→ Political Authoritarianism or Sufficiently centralized government (Acemoglu et. al, 2012)

-Korea: Capitalism under Authoritarianism

-China: Socialist market economy under communist Dictatorship

2) **ED policy regime**(Korea; Park's "God helps those who help themselves"; China; Deng Xiaoping's "the Rich-led nation")

3) **Corporate Economy**(China, USA, Japan, England, Germany, France, Korea)

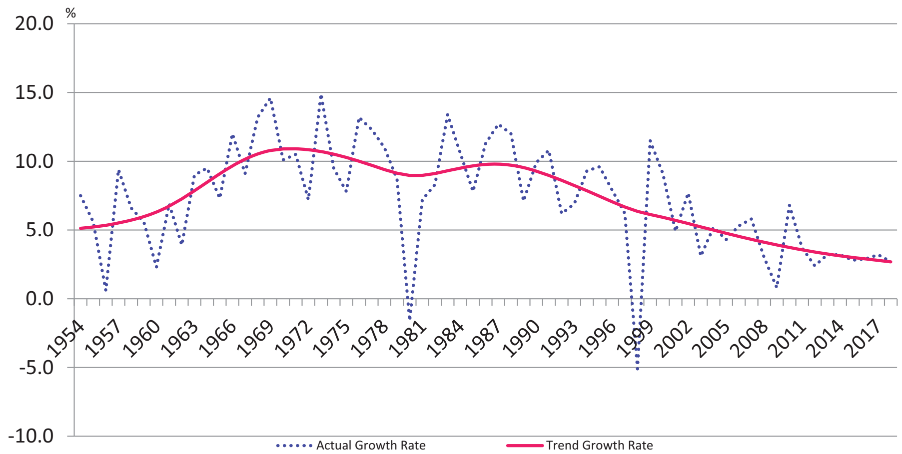
- Schumpeterian Socialism

1) Implant the spirit of capitalist corporate economy by utilizing capitalist entrepreneur-manager class in Panning Board in socialist state

2) Communist dictatorship to control anti-corporate labor union and other socio-political actions against corporate activities

3) Understand the nature of corporate-led capitalist growth economy

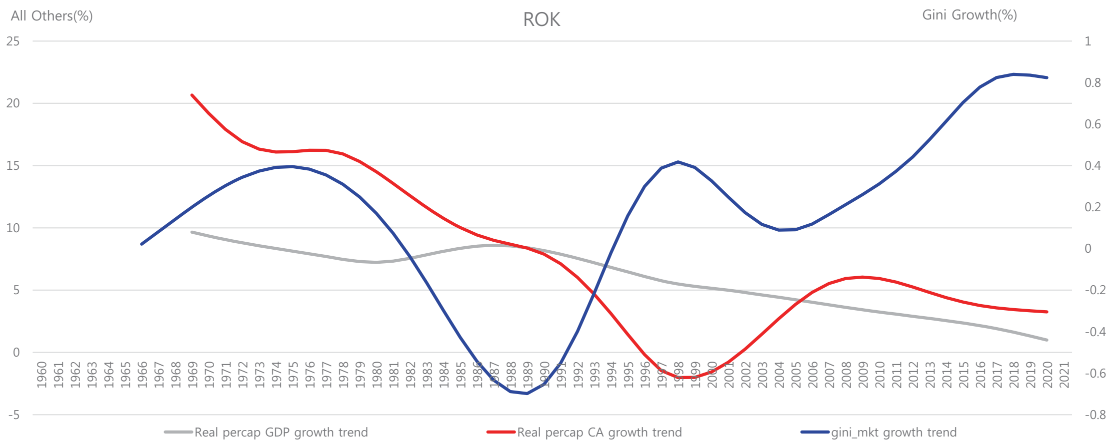
60 Years History of Korean Miracle(1)



- **60s-80s: Economize politics, ED and Corporate-led development policy era**
- **90s-Now: Politicize Economy, EE and anti-corporate growth policy era**

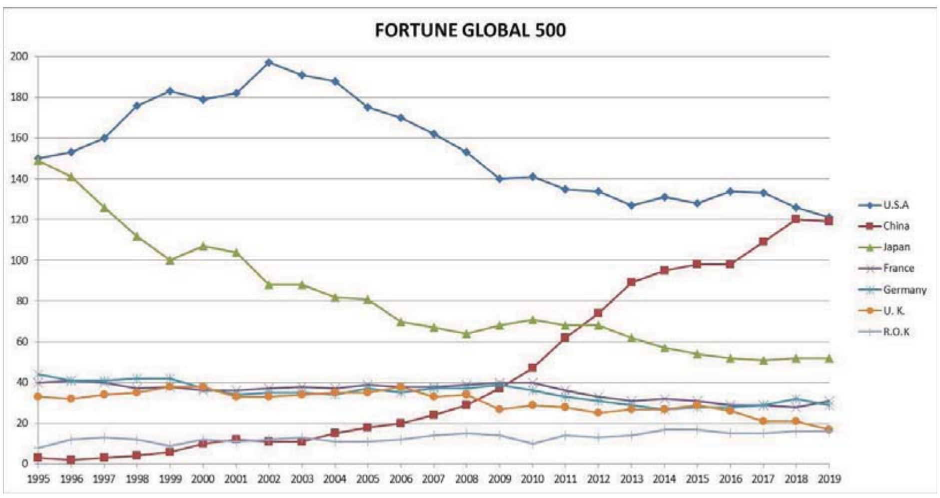
12

60 Years History of Korean Miracle(2):
Growth and distribution and corporate growth

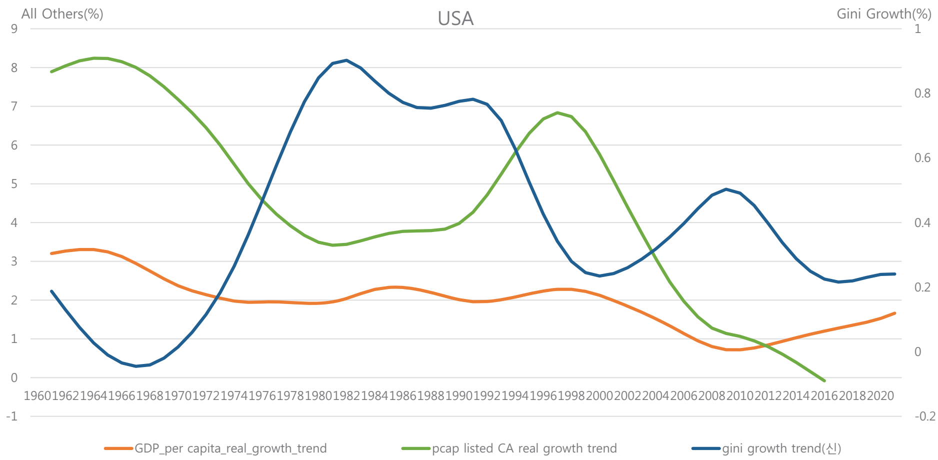


- Corporate-growth-led income growth and distribution

Chinese Corporate growth and Development

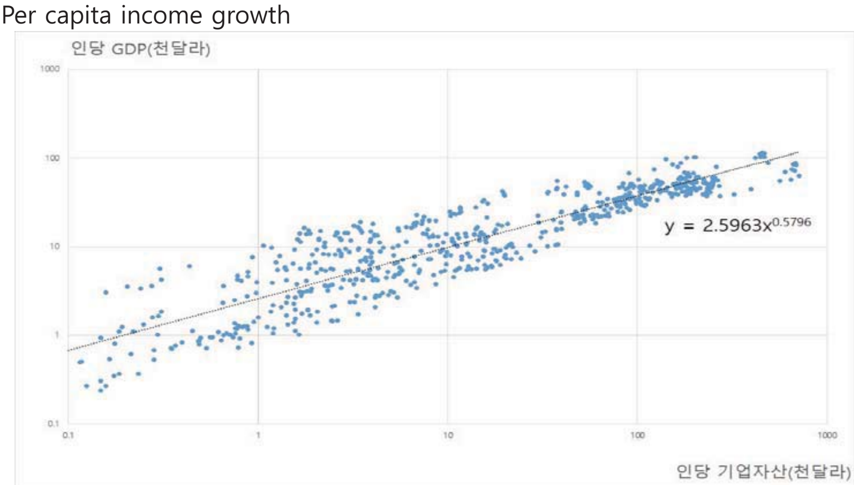


US Experience



Cross-Country evidence(1): Income growth and corporate growth (71 countries, 2005 to 13)

Per capita income growth

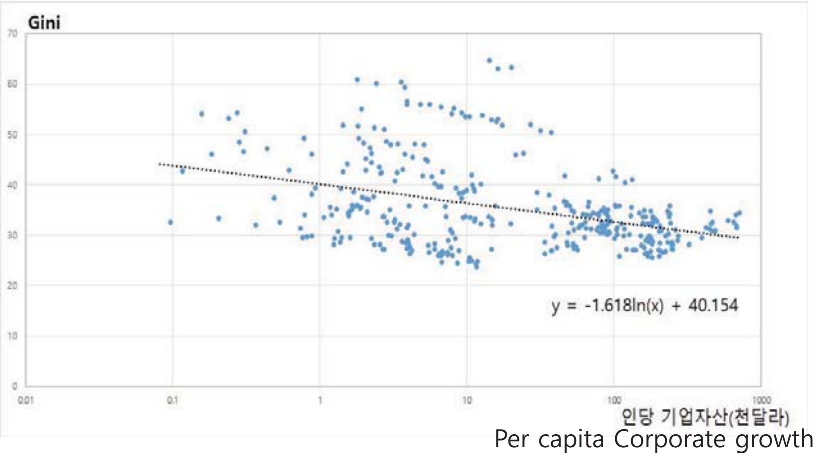


Per capita Corporate growth

2023-10-17

16

Cross-Country evidence(1): Gini and corporate growth (66 countries for 2005-13)



Per capita Corporate growth

Concluding

- Market-centric mainstream economics, reducing the corporate organization as a social technology into capital, labor and physical technology, is agrarian economics lacking corporate organization and misrepresents the capitalist corporate economy.
- Incorporating the corporate organization in parallel to the markets and the government into the center of economic transformation will help secularize pure economic science into realistic social science.
- Preconditions for Economic Catch-up: ED-friendly Political economy regime and Corporate-led growth strategy.

<Presented at The 18th International Conference of the East Asian Economic Association (EAEA), October 21-22, 2023, Seoul National University>

The Impact of *Policy-augmented Human Capital* on the Success of Industrial Revolution in Korea

Jung Mo Kang (Kyung Hee University; E-mail: jmkang@khu.ac.kr)
Sung-Kyu Lee (Andong National University; E-mail: skl62@hanmail.net)

The 18th International Conference of the East Asian Economic Association (EAEA), October 21-22, 2023, Seoul National University.

<Contents>

Abstract

This paper aims to examine the policy and institutional implications of "policy-augmented human capital" on Korea's industrial revolution and rapid economic development. Britain's industrial revolution was driven competitively by private firms based on the demand of peasants who were enriched by industrialization. On the contrary, Korea's industrial revolution, on the other hand, was a *government-led* initiative based on export demand from foreign markets, with the First, Second, and Third Industrial Revolutions occurring almost simultaneously over a short period of time.

The fundamental factors that drive economic development are the ability to recognize and seize opportunities and the motivation to take advantage of them. In an open economy, opportunity capture is endogenous because it is a function of the spirit of development and the capacity of "policy-augmented human capital”. Economic development theory is a theory of policy-augmented human capital. The economic definition of *policy-augmented human capital* is the ability to recognize, seize, and achieve opportunities, i.e., the ability to acquire and digest information and the policy-augmented human capital to achieve the economic goal of rapid economic development. The purpose of this paper is to examine how Korea’s economic development has been driven by ‘policy-augmented human capital’. *Policy-augmented human capital* refers to the ability of competent leaders and bureaucrats with economic development plans and concrete measures. The multiplied combination of this human capital and effective policies leads to rapid economic development by awakening dormant development capabilities and creating an enabling environment to unleash a country’s economic potential.

Korea’s industrial revolution can be characterized by *five propositions* that underpin its rapid economic development. The first proposition is that Korea’s industrial revolution was driven by ‘policy-augmented human capital’, which played a key role in determining the specialization of output, the nature and direction of trade, and the pace of economic growth. The second one is that the size and composition of the “industrial portfolio” was driven by ‘policy-augmented human capital’. The third one is that the size and composition of the industrial portfolio is an intended outcome of economic policy. The fourth one is the adoption of the *economic prosperity first, democracy later* paradigm. This is effective in activating ‘policy-augmented human capital’. In the case of Korea, the country achieved economic development and prosperity and then transitioned to democracy. The last one is “political and social stability” to protect ‘policy-augmented human capital’ as an intangible property right. These five propositions combine organically and multiplicatively to achieve rapid economic development.

Key words: Korean Industrial Revolution, Hoffmann’s ratio,
Policy-augmented human capital, Developmental spirit,
Pyramid-type catch-up model, Industrial portfolio,
Political and social stability.

I. Introduction

The way in which Korea designed and implemented a new economic institution and policies for its economic development was ‘uniquely Korean’ and not dominated by any specific Western economic ideas. Unlike the “Western Industrial Revolution”, which was largely based on individual invention and technological innovation under a laissez-faire market system, Korea’s market was not formed or was incomplete at the beginning of its economic development, so the government took over the function of the market[1]. In the face of a desperate need to “lift people out of poverty” and a shortage of experienced capitalists, the government acted as an *industrial manager*, accumulating superior human capital to build and operate modern factories. In the case of South Korea, rapid economic development was an urgent necessity in order to lift the people out of poverty, escape military threats from North Korea, and strengthen the national defense.

Whereas the European Industrial Revolution was driven competitively by private companies over a period of 150 - 250 years, Korea’s First, Second, and Third Industrial Revolutions occurred simultaneously in the 1960s under a carefully planned *government-led* program. Also, whereas the European Industrial Revolution was based on the demand of farmers who were enriched by industrialization using rural surplus labor, Korea’s was an *export-led industrialization* using rural surplus labor.

Until the World War II (1939-45), the nature and scope of the industrialization process in non-European countries were similar to the Industrial Revolutions in European countries that occurred first. In addition, the pace of growth in the later industrialized countries was naturally faster because they had access to the experience of the European countries. After the World War II, more than 140 new countries pursued their industrialization by imitating the experiences of advanced European countries, but most of them remained in the early stages of industrialization. In Korea, however, the average annual economic growth rate from 1962 to 1979 was 9% (Oh, Wonchul, 2003), and the average annual per capita output of East Asian countries from 1962 to 1985 was 5.7%. In contrast, from 1820 to 1980, including the

[1] This type of government has been called “market-augmented government” by Lee, Sungkyu (2015).

Industrial Revolution, the West's economic growth rate was only 1.6% (Kwon, 2004). When UNCTAD declared South Korea the 32nd most developed country in 2021, it was the first case in more than 140 newly independent countries created after the World War II.

Korea achieved rapid economic development by establishing and implementing *its own growth path* at a time when there was no clearly defined economic development model other than the so-called Neoclassical model. Therefore, Korea's developmental experience can be considered *unique* from a historical perspective. In particular, Korea's experience is *unique* in the sense that it pursued an *export-led industrialization* that was clearly different from the Neoclassical School thought during the era of protectionism and import substitution. Korea is a near-miraculous *fantastic case* of how a backward economy was rapidly transformed and developed into an *industrial economy* in a short period of time. Therefore, it is of great significance to examine how Korea succeeded in its Industrial Revolution.

From this perspective, the purpose of this paper is to focus on three points. First, to shed light on the Industrial Revolution from a historical perspective in Korea; second, to examine how South Korea developed from a backward, agricultural-based 'subsistence economy' in the 1960s and 70s to an 'industrial economy' through the Industrial Revolution; and third, to examine, in detail, the role of 'policy-augmented human capital' in its process.

II. Definition and Types of Industrial Revolution

1. Definition

The Industrial Revolution[2], also known as *industrialization,* is a process of quantum leap economic development in which rapid productivity increases are achieved through the productive and efficient use of physical resources in the production of goods and services. Specifically, the Industrial Revolution originated in the mid-18th century in England is defined as the transition from an *agricultural society* to an *industrial society* through not only

[2] The term "Industrial Revolution" first appeared in economic historian Arnold Toynbee's *Lectures on the Industrial Revolution of the Eighteenth Century in England.* In it, Toynbee defined the industrial revolution of 1760~1830 periods as 'the period when modern political economy began'.

technological innovation and convergence, but also structural transformation of politics, economics, society, and culture. The Industrial Revolution began in England and Europe, expanded to the United States, Russia, and Japan, and finally spread to Asia, Africa, and South America in the second half of the 20th century.

2. Hoffmann Ratio

When only conceptual explanations of the Industrial Revolution existed, W. G. Hoffmann (1958, pp. 2-8) defined the Industrial Revolution in terms of value added as follows:

$$Hoffmann's\ ratio(\%) \ = \ \frac{Output\ of\ consumer\ goods\ industry}{Output\ of\ investment\ goods\ industry}$$

Next, he found that this ratio decreases with the progress of industrialization, and based on this, he divided the industrialization into four stages. If the Hoffman ratio was (i) 5±1%, the country was classified as a *first-stage industrialized country* (underdeveloped country), (ii) 2.5±1%, the country was classified as a *second-stage industrialized country* (a country with some industrial development), (iii) 1±0.5%, the country was classified as a *third-stage industrialized country* (a country that is beginning to develop machinery and metal industries), and (iv) 0.5% or less, the country was classified as a *fourth-stage industrialized country* (an advanced or highly industrialized country). Based on these ratios, the *industrial revolution* is defined as the *transformation of an undeveloped country in the first stage into an advanced industrialized country in the fourth stage*. In particular, in advanced industrialized countries of the fourth stage, their heavy and chemical industries --- machinery, metals, and chemicals, etc. --- are more than twice as large as their light industry[3]. Oh, Wonchul (2003) calculated the Hoffman ratio for Korea by replacing consumer goods industry with ‘light industry’, and production goods industry with ‘heavy industry’ in the Korean statistical classification:

[3] See Oh, Wonchul (2003), pp. 5-6.

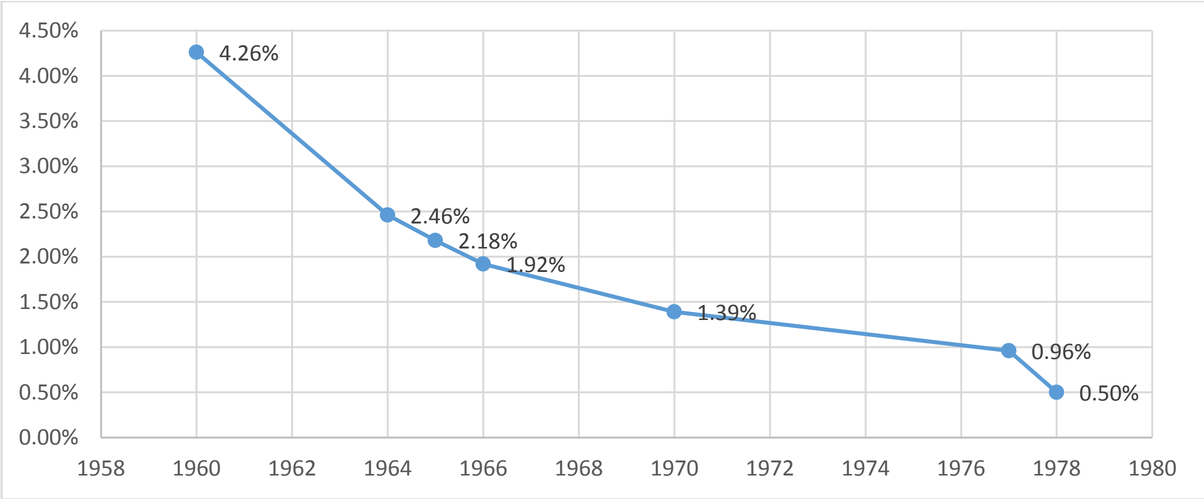
$$Hoffmann's\ ratio(\%)\ for\ Korea\ =\ \frac{Output\ of\ light\ industry}{Output\ of\ heavy\ industry}$$

South Korea’s *Hoffmann ratio* was 4.26 in 1960. However, in 1964, when exports reached 100 million dollars, the Hoffmann ratio dropped to 2.46%, marking the beginning of the first industrial revolution in Korea. In 1965, exports exceeded 300 million dollars and the Hoffman ratio was 2.18%, which led W. Rostow to conclude that South Korea had entered the leapfrog stage. In 1966, the Hoffman ratio was 1.92%, and the export industry began to develop in earnest at this time. In 1970, the long-awaited 1 billion dollars in exports was achieved, and the Hoffman ratio dropped to 1.39%. This means that South Korea ended the start-up stage of the Industrial Revolution (stages 1 and 2) and entered the third industrialized country stage (with a Hoffman ratio of 1.5~0.5%). South Korea began to develop its machinery and metal industries at this time and entered a period of full-scale growth, with exports growing at an average annual rate of more than 40% from 1964 to 1970. In 1977, South Korea reached a Hoffman ratio of 0.96%, with heavy and chemical industries overtaking light industry, exports reached 10 billion dollars, and GNP per capita reached 1,000 dollars. After 1977, the Hoffman ratio fell below 0.5%. Since then, South Korea has entered the fourth stage, expanded its industrial scale to first-class factories, and exported more than 100 billion dollars through quality upgrading, fostering precision industries, and exporting plants, and its national income per capita has exceeded 10,000 dollars.

<Table 1> Hoffman ratio and Stage

Year	Hoffman ratio	Stage
1960	4.26%	-
1964	2.46%	began the first Industrial Revolution.
1965	2.18%	entered the second Industrial Revolution
1966	1.92%	began to develop export industry.
1970	1.39%	started stage of the Industrial Revolution. entered the third industrialized country stage.
1977	0.96%	overtook light industry by heavy and chemical industries.
after 1977	below 0.50%	entered the fourth stage.

<Figure 1> Hoffman ratio in Korea



On the other hand, Kim, Myungja (2019) comprehensively defines the industrial revolution as a *bloodless revolution* in which the convergence between general-purpose technologies becomes diverse and complex as the stage of the industrial revolution is higher, resulting in not only innovations in technology and production but also disruptive innovations in all sectors including economy, society, and culture, and finally the value system is changed[4].

3. Types

In the history of modern industrialization, countries that favored technicians, skilled workers, and entrepreneurs became advanced[5]. By favoring technicians and entrepreneurs, England became a leader in the textile industry, and the First Industrial Revolution (1760-1830) began in England and spread to Europe by the 1830s. The First Industrial Revolution in Britain and Europe was driven by (i) increased food production and population growth, which created the conditions for the creation of new industries; (ii) the introduction and spread of coal-fired steam engines in the 1760s; (iii) the mechanization of the cotton textile industry with

[4] See Kim, Myungja (2019), pp. 18-20.

[5] Until the 17th century, France was the center of Europe, and in 1685, Louis XIV revoked the Edict of Nantes, which allowed religious freedom, and deported Protestants, the lower-class merchants called “Huguenots”, abroad. In the Netherlands, where most of them emigrated, the economy flourished. William III, who captured London and became king of England, brought many Dutch merchants and nobles to England and gave them preferential treatment.

improved spinning machines; (iv) the production of steam-powered trains in 1815; (v) innovations in iron smelting to meet the demand for machinery and the construction of railroads for transportation; (vi) political and institutional innovations; (vii) the factory system of machine production; (viii) entrepreneurship; and (ix) innovations in university education. Technological innovation at this time was not new technological innovation based on basic scientific research, but rather *improvements to existing industries*, but productivity was exploded. In addition, a key driver of technological innovation was "entrepreneurship", the taking of present risks for future economic benefits. The main contents of the First Industrial Revolution were the mechanical revolution, the textile industry, light industry, cotton textiles, steelmaking, improved spinning machinery, the birth of the theory of capitalism, the birth of Marxism, and the fulfillment of human physiological needs. On the one hand, the mechanization and factoryization of the First Industrial Revolution led to the establishment of corporate organizations, which transformed production activities, but on the other hand, it also led to the emergence of new classes of capitalists and workers.

The British Industrial Revolution spread to the United States around 1825-30, and by 1855, innovation had succeeded across all industries[6]. The U.S.-led "Second Industrial Revolution"[7] was achieved through the "Electrical Revolution", which created the service industry and established mass production system. The core drivers of the American Industrial Revolution were petroleum, chemical industry, internal combustion engine, conveyor belt, electricity, and automobile, and its main contents were communication, heavy chemical industry, steel, aviation, shipbuilding, petrochemicals, and satisfaction of safety needs (see <Table 2>).

---

[6] At the time, Germany was a backward country of more than 2,000 lordly lands and free cities, with many modern roads built by the invader Napoleon in 1807. On the other hand, the starting point of Japan's modernization was the Meiji Restoration in 1868, when 100 people of the country's highest paid officials were all foreign technical advisors.

[7] The term "Second Industrial Revolution" (1870-1930) was first used in 1913 in Sir Patrick Geddes's *Cities in Evolution*, and was introduced as an academic term in 1969 in *The Unbound Prometheus* by American economic historian, David Landes.

<Table 2> Key Elements of the Industrial Revolutions

	The First Industrial Revolution (1750-1830)	Second Industrial Revolution (1870-1930)	Third Industrial Revolution (late 1960s-early 21C)	Fourth Industrial Revolution (2010 -)
Trends	**Mechanical Revolution (Factory system of mechanical production)**	**Electrical Revolution (Mass production)**	**Information Revolution or Internet Revolution (Cooperative production system)**	**Intelligence Revolution (Digitalization of manufacturing industry)**
Core drivers	**Coal, spinning mills, canals and roads, steam engines, coking plants, railroads, political and institutional innovation, introduction of the factory system, entrepreneurship, innovation in higher education**	**Petroleum, chemical industry, internal combustion engine, conveyor belt, electricity, automobile**	**Electronics, information, knowledge, networking, convergence**	**Virtual physical systems, artificial intelligence control, superintelligence revolution, SW, Convergence of real and virtual worlds**
Main contents	**Textile industry, Light industry, Cotton textiles, Steel, Improved spinning machines, Birth of capitalist theory, Marxism is born, Fulfillment of menstrual needs**	**Heavy chemical industry, Steel, Automobiles, Aviation, Shipbuilding, Petrochemicals, Meeting safety needs**	**Convergence of new technologies, Serviceization of manufacturing, New materials(carbon fiber), New energy, Fulfillment of social attribution needs**	**AI, IoT, Robots, Drones, 3D printing, Virtual reality, Autonomous vehicles, Sharing economy, Self-actualization and honor needs**

Source: Author’s rewriting based on Yoon, Byungkyu (2013, p. 35) and Kim, Myungja (2019).

The *Third Industrial Revolution* (1970-2010) is the “Information and Communication Technology (or Network) Revolution” that has been underway since the late 1960s[8]. In the 21st century, technological innovations based on computers, the Internet, and mobile phones have led to the rapid digitization of the manufacturing industry, resulting in a collaborative production system between manufacturing and service industries[9]. This has led to the emergence of new technology convergence industries as well as new material industries as main industry, and the servitization of manufacturing into a global network, creating a huge manufacturing network connected to 3D printers and factories around the world. It has also heralded the rise of individual manufacturing and brought many comparative advantages to many SMEs in the future. The key drivers of the Third Industrial Revolution were

[8] The title “Third Industrial Revolution” was coined by Jeremy Rifkin in 2011 when he published a book emphasizing the convergence of digital technology and renewable energy.

[9] “Collaborative production” is a system in which producers, buyers, users, and investors cooperate with each other using IT-based online communities such as SNS and the Internet to create new ideas for products, commercialize them, and share profits.

electronics, information, knowledge, networking, digitalization, and convergence, and its main contents were the convergence of new technologies, the serviceization of manufacturing, new materials, new energy, and the satisfaction of society's needs. As a result of the rapid progress of the Third Industrial Revolution, which was defined by the expansion of information and communication technology and the resulting automation of production, the Fourth Industrial Revolution has emerged.

The *Fourth Industrial Revolution* is an "Intellectual Revolution" that refers to the digitalization of manufacturing industry. The convergence of the world has created a real (offline) world and a virtual (online) world, as the "Mechanical and Electrical Revolutions" of the First and Second Industrial Revolutions gave way to the "Internet Revolution" of the Third Industrial Revolution. The Fourth Industrial Revolution can be defined as the convergence of the real and virtual worlds to fulfill human desires. The convergence process consists of (i) *digital transformation* from the real world to the virtual world, and (ii) *analogue transformation* from the virtual world to the real world. The key drivers of the Fourth Industrial Revolution are virtual physical systems, artificial intelligence control, super-intelligence revolution, and software, and its main contents are intelligence revolution, artificial intelligence (AI), IoT, robots, drones, 3D printing, virtual reality, autonomous vehicles, networks and cooperation, platforms, and the fulfillment of self-actualization and honor.

In 2021, the United Kingdom, a leader in the First Industrial Revolution, had a GDP of 3,124.6 billion dollars, ranking fifth in the world, while Germany, a laggard in the Industrial Revolution, had a GDP of 4,319.3 billion dollars, ranking fourth, and Japan had a GDP of 5,378.1 billion dollars, ranking third. In 2021, South Korea had a GDP of 1,806.7 billion dollars, ranking 10th in the world. Britain was the 'economic teacher' of Germany and Japan, the late Industrial Revolution. Germany innovated on British-imported ironmaking technology to become a leader in the Steel Age, while Japan took over the market that Britain dominated with products made on British-made textile machinery. Korea was a laggard, 200 years behind the Industrial Revolution that created the modern capitalist world, but it quickly caught up by using the experience of United States, Japan, and Germany as its textbooks.

III. Policy-augmented Human Capital

1. Types of Human Capital

The fundamental factors that drive economic development are (i) the ability to recognize and seize opportunities and (ii) the motivation to take advantage of them. Economic development theory is about a theory of policy-augmented human capital. In contrast to its traditional concept, *policy-augmented human capital* is the ability to recognize, seize, and fulfill opportunities, i.e., the ability to acquire and digest information and the capacity of people to use it to achieve economic development. These capabilities are not only for entrepreneurs, workers, bureaucrats, and politicians, but also for each citizens[10].

These capabilities are influenced by prevailing institutions, knowledge and skill levels, habits, and the overall value system of a society. Furthermore, even when opportunities are recognized, if people lack the motivation to take advantage of them --- i.e., if the private benefits of effort are too small or uncertain relative to the risks --- they are unlikely to seize and exploit them. The ways in which underdeveloped economies overcome the gap in human capital activation and motivation through individual or collective effort are through investment in human capital, open economic policies, and export orientation. Open economic policies create a competitive environment that fosters learning through the absorption of new technologies, and export orientation is an important factor in narrowing the gap in human capital activation by promoting the quality of human and physical capital and creating new motivations. In this process, governments must provide political and economic institutions that not only facilitate the rapid dissemination of knowledge and information to all citizens, but also create motivation.

Human capital in the traditional sense refers to education, training, etc. and is an important long-term factor in the process of economic development[11]. In the case of Korea, the rapid growth of traditional human capital has played an important role in the rapid economic

[10] For more information, see Kwon (1998) and Kang, Jungmo (2018, pp. 296-305).

[11] See Schultz (1962) and Behrman and Schneider (1992).

development process. Education expenditures per student has increased by 355% in South Korea, 64% in Mexico, 38% in Kenya, and 13% in Pakistan during 1970-89. Birdsall and Sabor (1993) argued that quality of education (international test performance) is more important than its quantity. South Korea has excelled in international comparisons of student achievement; its primary school enrollment rate was comparable to that of industrialized countries in 1980, its secondary school enrollment rate was at the level of industrialized countries, and its higher education (colleges and universities) enrollment rate was much larger than that of Western industrialized countries. Creativity and innovation emerge from fierce competition, and moreover their bases are the level of human capital in a society, the right values, rational institutions and customs.

2. Policy-augmented Human Capital

However, a 'new' human capital concept, "policy-augmented human capital", is even more important for rapid economic development than human capital in the traditional sense. Policy-augmented human capital refers to (i) effective economic development planning and formulation and (ii) competent implementers including leaders and bureaucrats[12]. In this context, the formulation and implementation of economic development plan involves (i) the joint management of human resources between private industry and the government, (ii) risk sharing, and (iii) public-private coordination of many economic activities so as to achieve the common goals of *specialization of output, direction of trade, and acceleration of economic growth*. This *multiplier* combination of policy-augmented human capital and effective policies tends to awaken the dormant spirit of development, creating an engine that can unleash a country's economic potential. In particular, Korea's policy-augmented human capital and performance-based industrial policy have played an important role in its catch-up process with advanced economies.

Policy-augmented human capital is the ability to formulate and implement effective development strategies to achieve rapid economic development. In a broad sense, it is the

[12] For more details, see Kang, Jungmo, 2018, pp. 301-303.

ability of political leaders and bureaucrats to achieve effective economic development under adverse conditions, such as external threats and internal vested interests (Rostow, 1960). In addition, policy-augmented human capital is the ability to select industries with high growth potential in uncertain markets and to coordinate physical resources and investments. Thus, policy-augmented human capital is the ability to clearly define performance standards, formalize known rules, and delegate the achievement of goals with certainty. The role of government in this case is to ensure property rights guaranteed by predictable and reliable laws and contracts. The World Bank, on the other hand, has limited the role of government to maintaining macroeconomic stability and fiscal soundness and providing economic infrastructure[13]. Thus, the role of government under a policy-augmented human capital system implies *expanding the role of government* beyond the World Bank's market-friendly view.

Surprisingly, at the dawn of industrialization, South Korea had very little physical capital but an abundance of policy-augmented human capital compared to other backward countries (World Bank, 1993). This initial comparative advantage in policy-augmented human capital contributed significantly to Korea's rapid economic development through effective policy formulation and implementation, despite the lack of natural resources, scarcity of physical capital, and limited domestic market size. Therefore, policy-augmented human capital, along with economic discrimination, development spirit, and political and social stability, can properly explain why some countries succeed in economic development and others fail.

IV. Process and Characteristics of the Korean Industrial Revolution

1. Pyramid-type Economic Development Strategy

When South Korea established its First Five-Year Economic Development Plan in 1962, the government took the lead in proposing and implementing economic development directions and methods because there was no domestic market and private companies lacked capacity.

[13] See Amsden (2001) and Wade (1990).

The government has adopted a *pyramid-type economic development model*, starting with the end product and moving up to intermediate goods and raw materials, and actively encouraged to have export competitiveness at every stage. The government also dictated factories to be built, their priorities, funding, and industrial protection. Where the private sector could not do it, the government built the factories itself. In particular, the government provided selective support for industries to become export-competitive by dividing the five stages: (i) direct protection, (ii) prioritized support, (iii) self-reliant development, (iv) international competition, and (v) becoming the first-class stages. As a result, the government was able to reduce prices and increase quality by achieving appropriate factory size, introducing the latest technology and machinery, encouraging technological innovation and cost reduction. These stages of industrialization were as follows.

First is the *direct protection stage* where the government planned and implemented the economic development plan, and provided subsidies as it was the beginning of the economic development stage. Second is the *prioritized support stage* at which there was a lack of competitiveness and diseconomies of scale, so the government implemented a combination of import suppression and export support policies to protect the domestic market. Third is the *self-reliant development stage* where the government encouraged private initiative and supported them to achieve optimal economies of scale in increasing competitiveness. Finally, in the fourth stage and fifth stage, South Korea entered the *international competition stage* (stage 4) and *becoming the first-class stage* (stage 5) by actively advancing the international arena in industrial development. In other words, once the industry grew to an international scale, the government would only help it until it became internationally competitive, and then it would switch to private initiative and manage only statistical operations. During this industrialization process, Korea’s economic policy was micro-industrial policy in the first stage, and then switched to macro-statistical management in the fifth stage. This strategy is similar to the principle that students are taught by their teachers while they are in school, but after graduation, they become independent (see <Table 3>).

<Table 3> Industrialization Development Stages and Policies

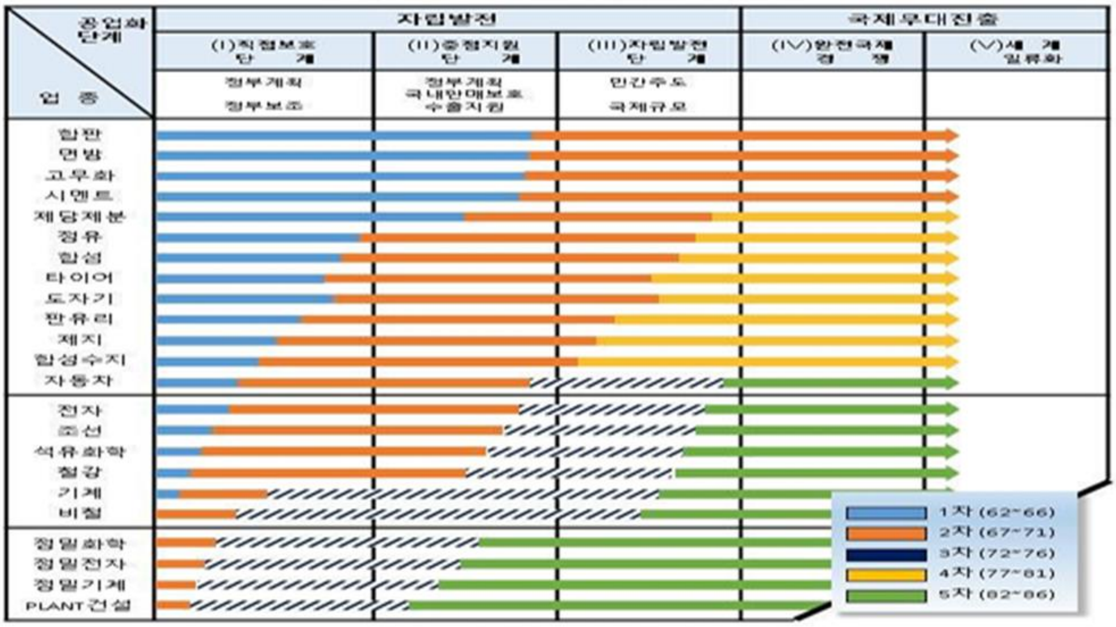
Stages of industrialization	Self-reliant development			Entering the international arena	
	(1) Direct protection	(2) Prioritized support	(3) Self-reliant development	(4) International competition	(5) Becoming the first class
Policies	Government plans, Government Support	Government plan, Domestic sales protection, Export support	Private initiative, International scale	-	-
Industrial stage	Backward industrialized countries		→		Advanced industrialized countries
Economic development method	Economic construction		→		Economic management
Example	Elementary school	Middle school	High school	College and university	Liberal economics (social life)
Economic policy	Microeconomic, Individual industrial policy		→		Macro, Statistical management
Initiative	Government-led		→		Private-led

Source: Adapted from Oh, Wonchul (2003, p. 507).

In the early stages of Korea's economic development, the government led the way, but there were significant differences in the stages of development among industries. First, plywood, cotton spinning, footwear, cement, sugar, and flour mills were already in the second stage (prioritized support stage) beyond the first stage (direct protection stage) during the First Five-Year Plan. Next, in 1971, at the end of the Second Five-Year Plan period, footwear, cement, sugar, flour, and oil refineries reached the third stage (self-reliant development stage). In 1972, the foundation of light industry was laid, and the industrial structure was being finalized by adding heavy chemical industry, which is at the top of the pyramid-type industrial development. On the other hand, the six key heavy industries --- electronics, shipbuilding, petrochemicals, iron and steel, machinery (including automobiles), and non-ferrous metals --- were still in the first stage, and the goal was to bring them to the third stage by the end of the Fourth Five-Year Plan in 1982. Only in the second half of the self-reliant development stage did these sectors become international-scale units and become privately oriented, and the backward and forward linkages were so large that they contributed significantly to the development of all industries[14] (see <Figure 2>).

[14] See Oh, Wonchul, 2003, Chapter 14.

<Figure 2> Stages of Industrial Independence Development



Source: Adapted from Oh, Wonchul (2003, p. 508).

2. Contributions to Policy-augmented Human Capital

Since it takes a long time for economic development to occur naturally and is inefficient, South Korea has been forced to establish a *government-led e*conomic development plan and establish new institutions and effective policies to support it. If the direction (goal) and method (means) of an economic development plan are not correct, then no results can be expected and irreparable mistakes can be made. Therefore, the success of economic development depends on the *perfection* of the government's economic development plan. When the government draws up a *roadmap* of what businesses to do and what factories to build from a national perspective, it should consider the backward and forward linkages between each business and each industry. The roadmap serves to suggest implementation plan that organically combines several policies, including determination of leading industries, priorities, enhancement of competitiveness, technology improvement, raw material measures, energy measures, domestic and foreign financing, export potential, foreign currency earnings or saving, and the rationalization of lagging industries among existing industries. At that time, Korea's technical bureaucrats were well-trained and especially equipped with *policy-augmented human capital*, so they succeeded in rapid economic development in cooperation with the private sector.

One of the most important issues that Korea needs to solve in order to compete and survive in the developed world is how to set the right factory size. If a factory is built without an appropriate economic unit due to small domestic demand, the unit cost is so high that it hinders exports and causes damage to the people and the country. Moreover, when starting to produce a new product, competing countries may engage in sabotage activities such as dumping, so it was necessary to avoid building a factory that is not reaching up to the *international competitive unit* from the outset. In this regard, we considered the following five points.

First is the issues of economies of scale, competition and monopolies. In order to cheaply build an automated international-scale factory using the latest technology based on insufficient domestic demand, and to produce and export products at internationally competitive prices, the government must *create and support a monopoly*. Based on this logic, the government has implemented a *step-by-step policy* of temporarily allowing monopolies in the early stages of industrialization to quickly expand internationally and enter the competitive system. In addition, the way to mitigate mutual dumping caused by competition is to develop overseas markets. The government supervised and guided monopolies to promote rationalization of corporate management, curb excessive profits, and improve quality.

Second is the issues of demand, timing, pace, and persistence. Demand is usually divided into domestic demand and export demand. Korea has a small domestic market, so it has to rely on export demand rather than domestic demand. Since exports have to compete in the international market, they must have international-level quality, price, factory size, and production facilities. In other words, management and productivity must be *internationalized*, and related industries must be developed and nurtured. Factory construction also requires the ability to capture just-in-time production to achieve the greatest impact. To this end, the government postponed factory construction until the pace of demand growth accelerated, even if there was some domestic demand. In order to generate demand at a steady pace once the factories are built, six major industries in the heavy chemical industry were *internationalized* by building industrial complexes and moving in.

When fostering a new industry, it is necessary to have a skeleton of the country’s basic industrial structure, even if it does not meet international standards. In this regard, the government has taken measures to protect the *fragile system* that is prone to collapse in the early stages because of lack of funds. The means are timely and appropriate administrative guidance, administrative measures, and legislative measures. To this end, the government established a system of monthly economic trend reports, trade expansion meetings, quarterly screening analyses, and regular presidential visits. The president attended the implementation of these systems to understand the situation and to provide prompt and efficient correction, supplementation, and support when problems are occurred.

Third issue is the difficulty of planning. Developed countries only need to operate and manage an economy with industry, while developing countries need to build an economy from scratch, so the situation between developed and developing countries is completely different. For example, in the case of apartment construction, underdeveloped countries have to build new apartments by locating, zoning, financing, purchasing materials, and constructing them, while developed countries have to operate and manage completed apartment complexes, so the situation in both countries is completely different.

Fourth is the issue of implementation. The primary gateway to industrialization in a backward country requires a *technocrat* who is fully aware of domestic and international conditions, is aware of world affairs, and is experienced and competent. Such a technocrat is the human capital augmented by policy. Korea’s attempt to build a heavy chemical industry which is many interrelated and complex was a great challenge, the first of its kind in world history. To accomplish this, South Korea created the Second Chief Economic Secretary under the President to coordinate the efforts of the various ministries.

Final issue is the promotion of the Korea Limited Company. The success of the policy-augmented human capital was made possible by the united efforts of patriotic and motivated entrepreneurs and citizens in the form of the so-called "Korea Limited Company"(KLC). The goal of the KLC was only to increase national power and modernize the country, but personal self-interest and political purposes were thoroughly rejected. Above all, the more backward countries are in need of *good leaders* and *strong leadership*. Strong leadership by a good leader is essential to the success of economic development. Korea's success can be attributed to the foundation laid by President Rhee Sungman and the outstanding leadership of President Park Chung-hee. Taken together, these five factors suggest that Korea's rapid economic development is fundamentally due to the contribution of "policy-augmented human capital".

V. Some Implications

The 1960s and 70s were the 'industrialization era' in South Korea. During the industrialization era, South Korea achieved rapid economic development through *government-led* strategy by (i) designing economic development plans, (ii) establishing new institutions and policies to support them, and investing material factors of production --- such as labor, capital, and raw materials --- in an efficient manner. In this process, South Korea pursued a *pyramid-type catch-up economic growth strategy*[15]. A pyramid-type strategy is a process that starts with the end product and works backwards to intermediates and raw materials. The pyramid-type catch-up economic growth strategy is summarized as follows. First, when there was a lack of demand to build an international-scale factory, a factory was built and then expanded its scale. In the early stages of industrialization, even if the government was accused of monopolization, the government adopted a *step-by-step policy* of temporarily allowing monopolies to build and then quickly expanding them to international scale and entering a competitive system. The way to mitigate mutual dumping caused by competition was to build international-scale factories, switch to a competitive system, and explore overseas markets. Monopolies were supervised and guided by the government to promote rationalization of enterprise management, curb excessive profits, and improve quality, while industries that were not important for economic development were encouraged

[15] See Hong (2002) and Lee (2014).

to compete boldly even if they were not on the level of an international scale. Second, demand was divided into domestic and export demand, but due to the small domestic market, monopolies were forced to rely on export demand, so management and productivity were internationalized and related industries were developed and cultivated. The construction of factories also requires technology to capture production effects at the right time when it has the greatest impact. Thus, before the pace of demand growth accelerated, the construction of factories was postponed even if there was some domestic demand, and after the construction of factories, the government helped to generate demand at a steady pace. When fostering the heavy chemical industry, the government built industrial complexes for all six major industries and let them move into, so that they could be internationalized. When fostering new industries, even if they do not meet international standards, they are fragile and prone to collapse in the early stages in order to form the framework of the country's basic industrial structure, so the government took precautionary measures and protected them through appropriate administrative guidance and legislative measures. In this way, Korea's industrialization was planned and executed by experienced and competent technical bureaucrats, or policy-augmented human capital, who fully grasped domestic and international conditions and were aware of world affairs.

In order to effectively promote the pyramid-type catch-up growth strategy, Korea's government has divided the industries with *dynamic comparative advantage* into five stages as follows:

Direct protection → Prioritized support → Self-reliant development
→ International competition → Becoming the first class.

By continuously transforming the "industrial portfolio" and promoting the appropriate scale, modern technology and new machinery, technological innovation, and cost reduction, the government has achieved rapidly *compressed growth* in a short period of time by increasing export competitiveness.

To accomplish this strategy, the first step was to effectively formulate and implement an economic construction plan. The effective formulation and implementation of the economic construction plan determined the success of economic development. The economic construction plan was effectively formulated and implemented as follows. First, the government considered the *backward and forward linkages* between each business and each industry from time to time as situation changed, and captured the start and completion of factory construction in a timely manner to meet the production and demand of products. Second, the government proposed an implementation plan that organically combined several policies, including the determination of leading industries, priorities, price and quality competitiveness, technology improvement, raw material measures, energy measures, domestic and foreign financing, export potential, foreign currency earnings and saving, and the rationalization of lagging industries among existing industries.

Next, the carefully formulated economic construction plan was implemented by ‘policy-augmented human capital’. At that time, well-trained technical bureaucrats cooperated with the private sector in the process of planning, and implementation of economic development. In addition, competent technical bureaucrats refused to build factories from the beginning that were not up to *internationally competitive units* in order to achieve economies of scale. Above all, the technical bureaucrats focused on the modernization and economic development of the country and thoroughly rejected self-interest and political goals.

Finally, this paper attempts to propose *five main propositions* from the Korean experience of rapid economic development as follows:

<Proposition 1> South Korea’s rapid economic development is a product of ‘policy-augmented human capital’. Policy-augmented human capital has played an important role in determining the specialization of products, the nature and direction of trade, and the pace of economic growth. A country’s economic development is a function of its *policy-augmented human capital*, which determines the size and composition of the promising industry portfolio that bring economic development. In a world where physical capital moves almost freely, the specialization of production by policy-augmented human capital is not affected or constrained by the initial availability of physical factors of production or the size of the domestic market (Forgel, 2009). In addition, policy-augmented human capital is increased or decreased by the abilities of bureaucrats, entrepreneurs, managers, workers, and politicians (Romer, 1986, 1990; Stiglitz, 1999; Kwon and Kang, 2011). In South Korea, 'policy-augmented human capital' has determined the specialization of output and the nature and direction of trade.

<Proposition 2> Policy-augmented human capital plays a role in the composition of the industrial portfolio in a development-oriented way. The size and composition of *industrial portfolio* in a country does not happen on its own, but is determined by *policy-augmented human capital*. The basic premise of industrial policy is to identify and promote industries that can achieve future comparative advantage and economies of scale. If the domestic market is small, the development of export markets is essential to achieve economies of scale. To develop export markets, the *import substitution system* should be transformed into an *export promotion system*. In order to have a large industry portfolio that promote economic development, it is necessary to combine a strategy of *catching up* with a strategy of *leading* economic development based on creativity and innovation. This must require (1) convergence of production technology and information technology, (2) fostering ventures and small and medium-sized enterprises through win-win cooperation and collaboration, and (3) shifting from cost-oriented management to value-oriented management.

<Proposition 3> A *spirit of development* is necessary. A requirement for economic development is the 'spirit of development'. To achieve economic development, it is necessary to find a motivation and incentive system that can generate the spirit of human development. On the contrary, egalitarianism is a sufficient condition for economic stagnation and recession. This spirit of development lies in the *economic discrimination by market, firms and government*. Economic discrimination refers to treating people or companies differently by rewarding them more favorably based on their economic performance. President Park Chung-hee once said to emphasize the punishment and reward principle, "The heavens help those who work hard. For the lazy, there is only poverty."

<Proposition 4> *Prosperity first, democracy later paradigm* promotes economic development by *activating policy-augmented human capital*. In this paradigm, economic prosperity is more likely to lead to political democracy. South Korea is an example of a country that achieved economic prosperity and then transitioned to democracy.

<Proposition 5> *Political and social stability* is necessary for the stable establishment of 'policy-augmented human capital'. If policy-augmented human capital is a necessary condition for economic development, then political and social stability is a sufficient condition for economic development. Even in countries with high levels of policy-augmented human capital, irrational policies or political and social unrest caused by social friction between classes tend to stagnate economic development[16].

References

Amsden, Alice H. (2001), *Asia's Next Giant: South Korea and Late Industrialization*, New York: Oxford University Press.

Behrman, Jere R. and Ryan Schneider (1992), "An International Perspective on Schooling Investment in the Last Quarter Century in Some Fast-Growing Eastern and Southeastern Countries", Washington DC: World Bank.

Birdsall, Nancy and Richard H. Sabor (1993), "Virtuous Circles: Human Capital Growth and Equity in East Asia", Washington DC: World Bank.

Cole, David C. and P. N. Lyman (1971), *Korean Development*, Harvard University Press.

Dong-A Publishing Company (1987), *Dong-A World Encyclopedia*, 4th edition.

Forgel, Robert W. (2009), "The Impact of the Asian Miracle on the Theory of Economic Growth", *NBER Working Paper*, No. 14967.

Hoffmann, W. G. (1958), *The Growth of Industrial Economies*, Translated from the German by W. O. Henderson and W. H. Chaloner, Oceana Publications Inc.

Hong, W., (2002), *Catch-up and Crisis in Korea*, Edward Elgar Press, Northampton, USA.

[16] Kwon and Kang (2011) and Krueger (1974, 1990) call this tendency "government failure".

Jaw, Sung-Hee (2017), *A General Theory of Economic Development: Towards A Capitalist Manifesto,* Cheltenham, UK: Edward Elgar Publishing,

Kang, Jingmo (2018), *Hongik National Wealth Theory*, Yulgok Publishing Company.

Kim, Myungja (2019), *Industrial Revolution in World History*, Magpie.

Kim, Yong Sam (2013), *Rhee Seung Man and the Entrepreneurial Age*, Book & People.

Korea Economic Planning Board (1962), *The First Five-Year Plan for Economic Development*.

Krueger, Anne O. (1974), "The Political Economy of the Rent-seeking Society", *American Economic Review,* 64(3), pp. 291-303.

Krueger, Anne O. (1990), "Government Failures in Development", *Journal of Economic Perspectives,* 4(3), pp. 9-23.

Kwon, Jene K. (2004), "The East Asian Model: Restatement", *Journal of Comparative Economics*, Vol. 11, No. 1, pp. 371-417.

Kwon, Jene K. (1998), "The East Asian Model: An Explanation of the Rapid Economic Growth of South Korea and Taiwan," UNCTAD Discussion Paper No. 135.

Kwon, Jene K., and Jung Mo Kang (2011), "The East Asian Model of Economic Development", *Asian Pacific Economic Literature*, Vol. 25(2), pp. 116-130.

Lee, Geun (2014), *Reinventing Economic Catch-up Theory: Theory and Empirics at the Firm, Industry, and Country Levels*, Orea Publishing.

Lee, Sungkyu (2015), "The role of government in expanding the market: focusing on 'market-expanding government'", *Review of Institution and Economics*, Vol. 9, No. 3, pp. 165-208.

Oh, Wonchul (2003), *The Model of Korean-type Economic Construction*, Korea Institute for Economic Policy Research.

Park Chung-hee (1963), *Nation, Revolution and Me*, Hyangmunsa.

Park Chung-hee (1971), *The Power of the Nation*, Gwangmyeong Publishing Company.

Romer, Paul M. (1986), "Increasing Returns and Long-run Growth", *Journal of Political Economy*, 94(5), pp. 1002-037.

Romer, Paul M. (1990), "Endogenous Technological Change", *Journal of Political Economy,* 98(5), pp. S71-S102.

Rostow, Walt W. (1960), *The Stages of Economic Growth*, Cambridge University Press.

Schultz, Theodore W. (1962), "Investment in Human Capital in Poor Countries", in P. D. Zook (ed.), *Foreign Trade and Human Capital*, Dallas.

Scitovsky, Tibor (1986), "Economic Development in Taiwan and South Korea, 1965～81", in L. J. Lau (ed.), *Models of Development*, San Francisco: ICS Press.

Stiglitz, J. E. (1999), "Knowledge for Development: Economic Science, Economic Policy, and Economic Advice", in B. Pleskovic and J. Stiglitz (eds), *Annual World Bank Conference on Development Economics 1998*, World Bank.

Wade, Robert (1990), *Governing the Market*, Princeton University Press.

World Bank (1993), *The East Asian Miracle*, Oxford University Press.

<Presented at The 18th International Conference of the East Asian Economic Association (EAEA), October 21-22, 2023, Seoul National University>

A New Theory of Economic Catch-Up and Implications for the Middle-Income Trap: A New Political Economy Perspective

Jwa, Sung-Hee[*] and Lee, Taekyu [**]

Abstract

The mainstream economic growth theory cannot explain why many underdeveloped countries fail to grow into developed countries, and why only a small number of countries have made the transition from underdeveloped to developed countries. We present the General Theory of Economic Development (GTED) to fill this void. The GTED argues that the core principle of economic development lies not in the input and combination of production factors but in the incentive structure of 'Economic Discrimination (ED)' and emphasizes that corporations play a key role in the process. The development of a country to a higher level means that corporations in the country are advanced in a way that produces higher value-added products. In this respect, in order for a country caught in the middle-income trap to escape that trap, the emergence of a group of large-scale technologically advanced corporations is essential. As the development experiences of Korea, Taiwan and China show, nurturing these advanced corporations is only possible when the industrial policy that implements the ED mechanism is executed successfully. The ED is a key driving force that leads to the emergence and growth of corporations, which in turn, leads to a country's economic growth.

[*] Director, ParkChungHee Institute of Development Studies and former President of Korea Economic Research Institute, 386 World Cup-ro, Mapo-gu, Seoul 03906, Rep. of Korea (Email: jwa4746@naver.com).

[**] Senior research fellow, Korea Economic Research Institute, FKI Tower 46F, Yeoui-daero 24, Yeongdeungpo-gu, Seoul, 07320, Rep. of Korea (Email: tklee@keri.org)

Ⅰ. Introduction

For a country, economic growth is one of its core policy goals. Especially in underdeveloped countries, escaping poverty may be a goal that surpasses any other national goal.[1] Therefore, economic growth is a very important field of study in economics and is well established, at least in theory, in modern mainstream economics. A growth model theorized in the form of a mathematical combination of production factors is the core of growth theory, and is a theoretical tool to explain a country's growth pattern. However, despite the establishment of such a sophisticated theory, economic growth is one of the areas in economics that is still not well understood in practice. Modern economic growth theory does not fully capture the different growth patterns of each country, and as a result, it cannot provide effective remedies for countries suffering from low growth. If the growth theory of mainstream economics were actually an effective theoretical framework that leads to sustainable economic growth in a country, many underdeveloped countries would not remain underdeveloped. International organizations such as the World Bank, which is home to leading mainstream economists, put forth numerous policy recommendations and provide development funds for underdeveloped countries, but the reality is that cases of underdeveloped countries continuously growing to enter high-income countries are very rare.[2]

Of course, there are many cases in which underdeveloped countries have succeeded in lifting themselves out of extreme poverty by increasing the inputs of production factors such as labor and capital. However, it is difficult to find cases of the country growing further from that stage into a so-called advanced industrial country, that is, a high-income country, except for some countries such as Korea, Taiwan, Singapore and etc. In other words, many countries have escaped the stage where the vast majority of the population suffers from poverty and have achieved growth to the stage of middle-income countries, but they have not succeeded in growing to the stage beyond that, into high-income countries. This phenomenon in which the country's economic level remains stagnant for a long time in a middle-income country is

[1] In this study 'underdeveloped countries' and 'low-income countries' are used interchangeably with the same meaning.

[2] See Jwa (2017 and 2017a) for a brief but critical survey of various growth theories or perspectives on growth.

called the 'middle income trap (MIT)'. Most of today's high-income developed countries have achieved that status a long time ago, and there are very few cases of many underdeveloped countries newly entering the developed world. Modern growth theory cannot provide a clear explanation as to why it is so difficult for underdeveloped countries to grow continuously and become developed countries

According to mainstream economic growth theory, economic development is measured by the size of output, and this output is determined by a mechanical combination of production factors - capital, labor, and technology - that is, the production function. What the production function says is that if the input of human and material resources is increased, the output also increases, so economic development occurs automatically. However, this mechanical and schematic economic development theory cannot explain the failure of many underdeveloped countries to narrow the gap with developed countries despite pouring enormous human and material resources. In addition, the theory cannot well explain the success stories of countries such as Korea and Taiwan. And even more embarrassing is that the Chinese phenomenal growth still remains a puzzlement to mainstream economics. All these anomalies with growth theory and practices stem from the tautological nature of institution-free growth accounting theory. This theory does describe what constitutes growth but does not explain what causes growth.

Having discussed the potential problems of neoclassical growth accounting theory, now it is time to overview the significant lines of research on how to escape MIT by overcoming such weaknesses. Lee (Lee, 2013 and Lee *et al.*, 2022) has worked hard to discover what patterns of national technological innovations successfully lead to economic catch-up broadly within the neoclassical growth accounting framework and thereby contributed to deepening our understanding on the nature of the relationship between technology and economic development. On the other hand, Lin (Lin, 2010 and 2012, and Lin and Treichel, 2012) has emphasized the importance of upgrading industrial structure for economic development as seen from the process of Chinese catch-up process and tried to revive the role of industrial policy as a means for industrial restructuring in the name of “new structural economics”. However, he does this still within a framework of mainstream theory of comparative advantage which theoretically doesn’t allow the room for industrial policy at the outset. In this regard, it seems Lin’s effort to give a new life to industrial policy and build new structural economics still has some limitations.

Given these endeavors emphasizing the importance of the government in the economic catch-up to avoid MIT as an innovator or innovation designer for Lee or structural reformer for Lin, one may wonder who innovates the economy and who creates new industries in practice. Is it the government or the corporate firm? It seems Lee and Lin do not ask this question seriously. We think this is one of the most important questions that has, however, never been seriously addressed in economics since Adam Smith. These authors think it is a corporate organization but not the government that innovates and creates industries in the capitalist economy. Therefore, if a growth and development theory sidesteps corporation, has it only in the background with passing remarks, or reduces the corporation to a few factors of production function, it won’t be able to provide an accurate picture of capitalist economic development and proper policy prescriptions, just like the neoclassical growth theory as well as the Washington consensus. An exception was Schumpeter (1942) who championed the role of entrepreneur in capitalist economy but unfortunately slipped into a trap of socialism, to whom we will return for seeking a political economy framework for economic catch-up later.

This paper will assume the critical role of corporations in economic development in parallel to the markets and the government, and presents the new General Theory of Economic Development (GTED), which can complement and go beyond the growth theory of mainstream economics. This theory can consistently explain not only the cases of countries such as Korea and Taiwan that succeeded in entering high-income countries and countries that fell into the MIT and even were trapped in poverty but also the Chinese remarkable growth experience. It can also explain why the developed countries stagnate.

The GTED argues that the core principle of economic development lies not in the input and combination of production factors but in the incentive structure of ‘economic discrimination’ and emphasizes that corporations play a key role in the process. The neoclassical growth accounting theory, rather than explicitly dealing with ‘corporations’ or ‘firms’, decomposes firms into labor, capital, and technology. However, in the GTED, corporations are not decomposed into labor, capital, and technology, but become the protagonists who operate the 'economic discrimination' incentive structure. To roughly summarize, the gist of this theory is that a country's sustainable growth can be achieved when a 'discrimination' incentive structure is properly operated through the entities called ‘corporations’. In that sense, GTED can be said to be a corporate-led growth model. If this growth process suggested by GTED is lacking, a country cannot achieve sustainable growth and it becomes almost impossible for an underdeveloped country to leap forward into a developed country. Therefore, the GTED presented in this study can also be interpreted as a new capitalist catch-up model, which means that policy implications for not only escaping from poverty trap but also overcoming the middle-income trap can be derived through GTED.

Afterwards, this study is structured as follows. Chapter Ⅱ describes the MIT phenomenon by presenting the definition, characteristics, and examples of middle-income countries. Chapter Ⅲ introduces the GTED theory providing the perspective of corporate-led growth as a capitalist catch-up model. Chapter Ⅳ presents a GTED-based political economy model to discover actual political economy regime for economic catch-up. Chapter V introduces Korea's and Taiwan's corporate-led growth as examples of overcoming MIT and China’s corporate-led growth nearly overcoming MIT, all by the implementation of the GTED theory. Chapter VI presents the causes of the middle-income trap, and Chapter VII concludes.

II. The Middle-Income Trap (MIT)

1. Classification and Characteristics of Middle-Income Countries

There is no clear academic definition of middle-income countries that all economists agree on. However, in general, many international organizations refer to countries with a per capita income of approximately $1,000 to $15,000 as middle-income countries. In the case of the World Bank, middle-income countries are more specifically classified. The classification of middle-income countries presented in 2020 refers to countries with GNI per capita (nominal, based on the World Bank Atlas method[3]) between $1,036 and $4,045 as lower

[3] The World Bank's Atlas method is a method of converting each country's national income (GNI) into dollars using a conversion factor that uses a three-year average exchange rate called the Atlas conversion factor instead of a simple exchange rate. For more information, please refer to the following World Bank's webpage:

middle-income economies, and those between $4,046 and $12,535 are classified as upper middle-income economies. According to the World Bank's classification, there are 29 low-income countries, 50 lower-middle-income countries, 56 upper-middle-income countries, and 83 high-income countries.[4]

Meanwhile, a study by Felipe, Abdon and Kumar (2012) presented their own standards for 124 countries, with an income of less than $2,000 being a low-income country, the range of $2,000 to $7,250 being a lower-middle-income country, and the range of $7,250 to $11,750 was classified as upper-middle-income country, and the range of $11,750 or more was classified as high-income country. These studies classified income groups using real income in 1990 PPP dollars. The World Bank classification has a disadvantage in that it is difficult to classify a country's past because it is based on nominal income. Felipe, Abdon and Kumar's classification was designed to compensate for this shortcoming. Since the purpose of this study is not how to classify income, we will conduct the analysis according to the World Bank's official classification.

Then, let’s take a look at what characteristics each group of countries according to the World Bank classification has. Since not all countries present statistical values for the statistics presented in the table below, the number of samples varies for each statistic even if they belong to the same income group. The year that serves as the basis for statistics was set as recent as possible, and the year with the largest number of samples was selected. First, looking at the gap in income by income group, the average GNI per capita of lower middle-income countries as of 2019 is $2,443.3, and the median of the sample is $2,255. For upper middle-income countries in the same year, the average GNI per capita is $7,108 and the

(https://datahelpdesk.worldbank.org/knowledgebase/articles/378832-what-is-the-world-bank-atlas-method).

[4] As the range of countries that can be classified as middle-income countries is quite wide, there are cases where certain countries that are classified as middle-income countries do not match our perception. For example, according to the World Bank, countries such as Nepal and Zimbabwe are classified as lower middle-income countries, but common sense recognizes these countries as low-income economies. In addition, among high income economies according to the World Bank standards, lower income groups, for example, small countries such as Panama and Liechtenstein, which have small economies, are generally recognized as middle-income countries. Therefore, when classified according to the World Bank's standards, upper middle-income countries and countries at the level of the lower income group of high-income countries can be said to be closer to 'middle-income countries' as commonly held by the general public.

sample median is $6,570. Although it belongs to the middle-income group, there is a significant difference of nearly three times between the bottom and top countries. On the other hand, in high-income countries, the average value is $36,501.7 and the median value is $29,210, which is almost five times higher than the average and median value in upper-middle-income countries. When comparing low-income countries and lower-middle-income countries, the difference in average income is more than three times, so looking at the difference in average values, it can be inferred that it will be much more difficult for upper-middle-income countries to grow into high-income countries than for low-income countries to grow into middle-income countries.

Along with income, there are clear differences between countries in various variables such as education and lifespan, although not as much as income. There are clear differences by income group in lifespan, secondary education enrollment rate, and number of mobile phone registrations. In particular, it can be confirmed that there is a big difference between middle-income and high-income countries in per capita electricity consumption and high-tech exports. On the other hand, in the case of the Gini coefficient, there is no clear difference by income group. This may be due to the fact that the number of data for the Gini coefficient is much smaller than that of other variables (statistics were obtained for only 67 countries out of 217 total samples), or it may be due to the fact that the income spectrum of high-income countries is very wide.[5] However, in our other study[6], which used much more data than the World Bank statistics, empirical analysis showed that as income increases, income distribution also improves. Therefore, it is believed that additional research is needed on the relationship between income distribution and income groups.

[5] Among high-income countries, the income gap between lower and upper-income countries is close to 7 times in some cases, and the difference between the average and the median in high-income countries is very large compared to other income groups.

[6] Jwa and Lee (2016, 2020)

<Table 1> Characteristics between Country Groups by Income

Variables		Low-Income	Lower-middle-income	Upper-middle-income	High-income
Per capita GNI ($, 2019)	Average	692.2	2,443.3	7,108	36,501.7
	Median	690	2,255	6,570	29,210
Life Expectancy (year, 2018)	Average	62.5	68.2	73.6	79.8
	Median	62.0	69.5	74.3	80.8
Secondary enrollment rate (%, 2018)	Average	41.3	73.6	94.4	107.6
	Median	40.9	77.3	95.4	105.2
High-tech export (%, 2018)	Average	9.7	8.4	8.5	14.9
	Median	2.9	2.8	5.3	11.7
Mobile cellular subscriptions (per 100, 2019)	Average	64.7	98.3	109.1	134.6
	Median	57.3	96.0	107.0	126.77
Per capita Electric power consumption (kWh, 2014)	Average	369.2	804.5	2,660.1	8,660.1
	Median	172.4	588.7	2,563.6	6,712.8
Gini Coef. (2017)	Average	38.1	35.0	36.6	35.7
	Median	36.4	34.0	34.2	35.8

Source: World Bank, Author Calculations

Meanwhile, one of the other characteristic features is that in the proportion of high-tech exports, although there is no significant difference between low-income countries and middle-income countries, there is a large difference between middle-income countries and developed countries. To interpret this, growth from a low-income country to a middle-income country is possible through quantitative growth through increased factor input, but growth from a middle-income country to a high-income country is only possible when accompanied by qualitative growth of industry, that is, the proportion of exports of high-tech products must increase. Typically, low-income countries lay the foundation for economic development through investment in labor-intensive industries based on low wages. In the process, exports and income increase, taking the country one step closer to becoming a middle-income country and pursuing continuous economic growth in earnest. However, as can be seen from the proportion of high-tech exports, it is difficult to close the gap between high-income countries and middle-income countries simply by increasing factor inputs. Entry into a high-income country becomes possible only when a country's major industries undergo qualitative changes and acquire the ability to manufacture products with high added value.

2. The Case of the Middle-Income Trap

The qualitative transformation of the economy required to move from a middle-income country to a high-income country is a very difficult task, and this difficulty leads to the so-called ‘Middle-Income Trap’ phenomenon. The concept of the ‘middle-income trap’ was first raised in the World Bank’s 2007 report.[7] Since then, several studies have analyzed the middle-income country trap, but there is no clear judgment on how long a country must remain stagnant in a middle-income country before being classified falling into the ‘trap.’ In a study by Felipe, Abdon and Kumar (2012), 28 years in lower-middle-income countries and 14 years in upper-middle-income countries were used as the threshold for the middle-income trap, and those who stayed in the relevant income group for more than this period were judged to have fallen into the middle-income trap. In this study, this boundary is only the median of the period each country stayed in the corresponding income group and has no other theoretical background. Since the purpose of this study is not to present the criteria for the middle-income trap, it does not clearly determine whether a specific country is in the middle-income trap or not. However, since there are rare examples of countries growing from low-income countries to middle-income countries to high-income countries after World War II, it can be assumed that many current middle-income countries, unless they are new countries, are caught in the middle-income trap.

In this study, we intend to comparatively analyze the cases of Korea and major middle-income countries, such as Argentina, Mexico, Thailand, Malaysia, India, and China. The World Bank's classification by income is currently based on nominal GNI, so to understand the growth stage of major countries, let's examine the growth trend by converting GNI per

[7] Gill, Indermit and Homi Kharas (2007), An East Asian Renaissance: Ideas for Economic Growth, World Bank, Washington DC.

capita to real terms. For convenience of comparison, the starting point for the six countries is 1960, as shown in the figure below, and only China starts from 1995, where data is available. Decades ago, there was no standard for classifying low-income, middle-income, and high-income countries, so past nominal income is converted to real income and then the level of each country is classified using the current World Bank classification standards.[8]

For example, suppose that country A's real per capita income (GNI) was $2,000 in 1970. Although it is classified as a middle-income country by current classification standards, in 1970, Country A may have been perceived by the public as a low-income country. However, since there was no official World Bank classification standard by income at that time, classification according to the standard was not possible. Judgments can only be made at the level of common sense. In this study, it is not important what income group you actually belonged to in the past because it is intended to track how quickly you went through the income stages. In 1970, Country A may have actually been recognized as a low-income country, but based on current real income standards, it is judged to be a middle-income country and we will look at the rate at which it grew by stage.

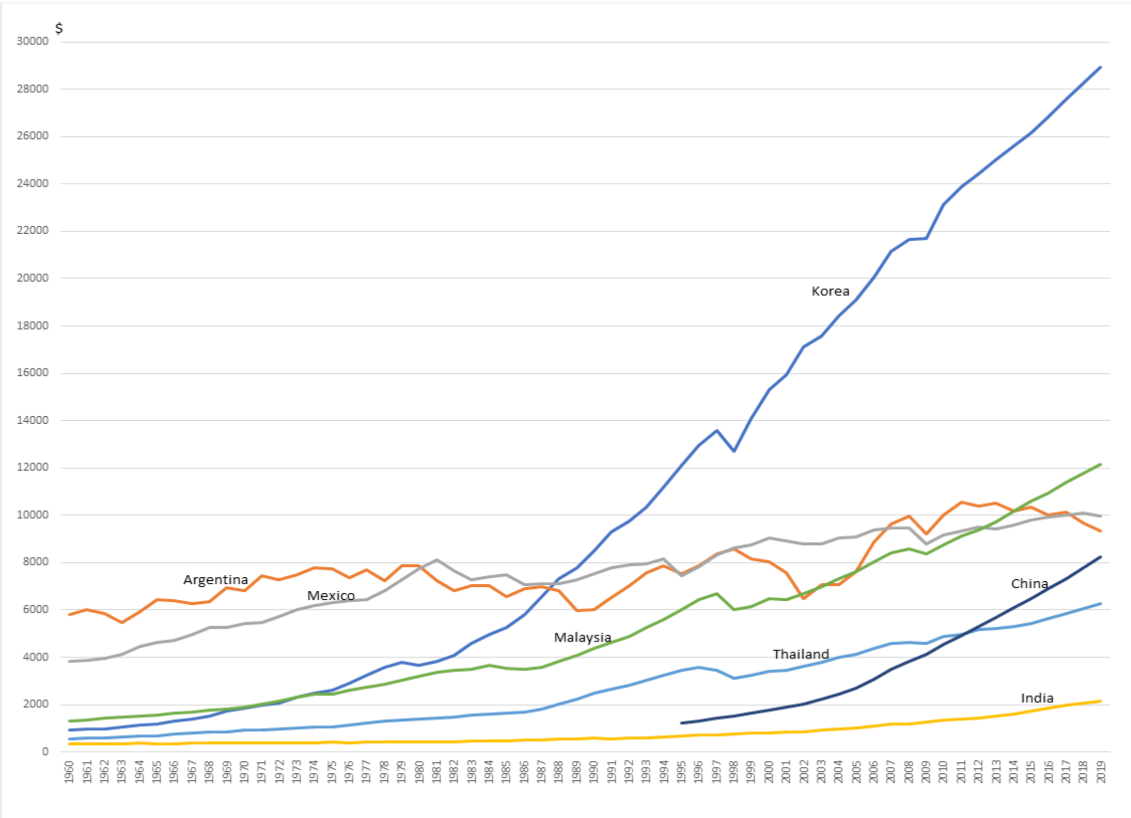
According to the current classification standards based on 2010 US dollars, Korea was a low-income country in 1960, but entered a lower-middle-income country in 1963.[9] Afterwards, Korea entered the upper middle-income country in 1982 and became a high-income country in 1996. Of course, in terms of public perception, Korea in 1996 would not have been recognized as a high-income country, but if the World Bank classification criteria were applied based on real income, this would be the case. In this way, it took 3, 19, and 14 years from a low-income country to become a lower-middle-income country, upper-middle-income country, and high-income country, respectively. On the other hand, looking at the case of Argentina in the same way, it was already in the upper middle-income group in 1960, but

[8] The real standard is based on 2010 US dollars, so there may be errors due to the fact that it is not the latest year. However, despite these errors, it is judged that there will be no great difficulty in identifying the middle-income trap phenomenon in terms of tracking the growth stage.

[9] To emphasize once again, Korea would still have been recognized as a low-income country in 1963. However, if converted to real income and applied to the current World Bank classification standards, it can be seen that the country has become a lower middle-income country according to the World Bank standards in just three years.

as of 2019, it only records the low $9,000 range. In the case of Mexico, it quickly moved from a lower-middle-income country in the 1960s to an upper-middle-income country in 1963, but like Argentina, it is still an upper-middle-income country. These countries have never left the ranks of middle-income countries, and in the case of Argentina, it surpassed the $10,000 barrier in the 2010s, but has since retreated.

<Figure 1> Per capita Real GNI Growth of Korea and Selected Middle-income Countries



Note: 2010 US $ base
Source: World Bank

The Asian middle-income countries in <Figure 1> show a slightly different situation from the South American middle-income countries. In the case of Malaysia, it took nearly 30 years to move from a lower-middle-income country in the 1960s to an upper-middle-income country in 1989 and to exceed GNI per capita of more than $4,000. However, unlike middle-income countries in South America, which have frequently recorded negative growth, Malaysia has grown steadily since becoming an upper-middle-income country, overtaking Argentina and Mexico in the mid-2010s. If the current trend continues, it will not be difficult for Malaysia to become a high-income country. In the case of Thailand, it went from a low-income country in the 1960s to a lower-middle-income country in 1974, and it took 14 years to break away from the status of a low-income country. After that, it took 31 years to successfully grow from a lower-middle-income country to an upper-middle-income country in 2005. Meanwhile, India showed much slower growth than Malaysia or Thailand. India grew from a low-income country in the 1960s and entered a lower-middle-income country in 2006. It took 46 years to pass this growth stage, and it has not yet escaped from the status of a lower-middle-income country. In 1960, the difference in GNI per capita (in real terms) between India and Thailand was $240, but in 2019 it widened to about $4,132. In the case of China, since data has been provided since 1995, direct comparison with other countries is difficult. China's real GNI per capita in 1995 currently ranks among lower middle-income countries according to the World Bank. After reaching the level of income of an upper-middle-income country in 2009, it is still at the level of a middle-income country. Considering 1995 as the starting point, it took 14 years to grow to a level higher within the middle-income range. Looking at the slope of the graph in <Figure 1>, it shows a steeper slope compared to other middle-income countries. If growth continues at the current pace, it does not seem very likely that the country will fall into the middle-income trap like South America and India.

As can be seen from the examples above, middle-income countries show different growth patterns, and therefore the time it takes to overcome the middle-income trap is expected to be quite different. In other words, the process of development stage and speed of economic growth in each country are different, and in some countries, the speed may be very slow. However, Korea's case shows that this growth stage can be compressed depending on which policy is pursued and how. In other words, Korea, as a latecomer, has gone through the stages of capitalist development that previous high-income industrialized countries have gone through in a compressed manner, and in a short period of time. In the next chapter, we introduce a theoretical paradigm that allows a country to achieve continuous growth without falling into the middle-income trap.

III. Theory of Institutional Requirements for Economic Development: A Brief Summary

This section provides a concise overview of the GTED (General Theory of Economic Development) as a novel analytical framework for assessing economic growth and distribution. The GTED expands on the new institutional economics by incorporating insights from complexity economics, particularly the non-linear open interaction among economic agents that leads to the emergence of economic development in a complex and higher-order economy.[10] The main objective of the GTED is to identify the institutions that can give rise to this emergence or new order, considering the imperfect information present. It concludes that the institution of economic discrimination (ED) is crucial for the emergence of economic development.

1. Development: Transformation of the Complex Economy

According to the GTED, economic development can be defined as a non-linear transformation of the economy, wherein the quality and order change significantly. For example, the economy transforms from a wagon economy to a railway, to an automobile, to an airplane, and to a spaceship economy with necessary change of quality. This concept aligns with the views of Schumpeter, which reads, ‘Add successively as many mail coaches as you please, you will never get a railway thereby’.[11] In other words, Schumpeter argued that simply adding more of the same does not lead to transformative growth. While measuring quality in aggregate economic analysis presents challenges, the GTED suggests that development may be assessed based on shared and inclusive growth, encompassing both quantitative growth and equitable income distribution.

[10] The *GTED* integrates the *new institutional economics* (*NIE*) (North, 1990, 1992, 1992a and 1993; Eggertsson, 1990) and the insight of *complexity economics* (Beinhocker, 2006; Arthur et al., 1997; Colander, 2006; Corning, 2002). See Jwa (2017) for the full exposition of this theory and Jwa (2017a, 2020) for its theoretical and empirical application to Korean economic history. Also, see Stratieva (2018) for a brief summary of this theory.

[11] This quotation is from the first footnote on page 64 of Schumpeter (1974[1934]).

2. Free-Riding: Necessary for Development but cause for Development Failure

The GTED highlights the necessity of open interaction among economic agents for sharing synergies and exchanging successful know-how ('meme' or cultural DNA), as prescribed by the Second Law of Thermodynamics. This implies that having prosperous neighbors is good for development,[12] contrary to what socialists like Karl Marx have argued. However, this interaction can also give rise to the problem of free-riding (FR), wherein competing agents exploit the success of others without contributing adequately. Free-riding can eventually cause development failure by distorting incentives to create and innovate, as the real-world imperfect market cannot fix the free-riding problem due to positive transaction costs. The GTED emphasizes corporate organizations can provide an institutional setting that protects innovation beyond the government. Regarding this matter, it is worth noting that neoclassical market-centric and endogenous growth theory typically assumes, either implicitly or explicitly, that free-riding on the success of superstars is a necessary condition for economic growth. However, the potential negative consequences of free-riding have often been overlooked in both theoretical and policy discussions. Romer (1990 and 1994), a key proponent of endogenous growth theory, does not consider free-riding as a significant issue. He assumes that the oversized profits generated by monopolies in the short term outweigh any potential long-term profit losses since information is imperfect in the early stages of innovation.[13] Consequently, the market can supposedly continue to generate endogenous growth even without positive feedback from corporations or government intervention, as market imperfections like free-riding are assumed to have no impact. Nevertheless, the validity of this theory remains subject to empirical examination.

---

[12] Coincidentally, Chetty, R., Jackson, M.O., Kuchler, T. *et al. (2022*) has shown that the economic connectedness measured by the share of high-socioeconomic status(SES) friends among individuals with low SES is among the strongest predictors of upward income mobility identified to date, by investigating the data on 21 billion friendships from Facebook to study social capital. This may be a piece of indirect evidence to support the argument in the text.

[13] This argument implies that the *FR* phenomena will not be a critical barrier to growth; indeed, the market alone could take care of the problem with *FR*. See Warsh (2006) for this point and a very informative survey of the literature in this field.

In contrast, the GTED asserts that free-riding, specifically the act of benefiting from the accomplishments of superstars, is a prevalent and pervasive phenomenon throughout the history of human development in complex societies. The GTED recognizes that humans have created institutions such as the state, the military, and private corporations to address this issue outside of the market. It has been discovered over the course of economic development that markets alone are insufficient in promoting progress, despite what we have learned from the perfectly competitive economic model. Thus, the GTED suggests that markets must be complemented by enabling institutions and their enforcement to foster development.

3. Economic Discrimination: Enabling Institution for Development

The GTED proposes economic discrimination (ED) as an enabling institution for the emergence of a complex economy. ED involves differentiating treatment based on economic performance, favoring those who demonstrate high performance. This discrimination serves as a motivational incentive mechanism for promoting shared, inclusive, and sustainable development by establishing a fair and just economic reward system.[14] Notably, ED should not be confused with political or social discrimination, and the market function of economic discrimination will help eliminate non-economic discrimination from the marketplace.[15]

On the flip side, economic egalitarianism (EE) can be defined as the equal treatment of individuals regardless of their economic differences. The GTED argues that ED is a necessary condition for economic development by strengthening incentives while EE is a sufficient condition for economic stagnation by distorting incentives. It is important to note that ED is a fundamental determinant of income distribution along with economic growth, as the growth incentive is given by the differential reward consistent with actual performance. Therefore, in principle, growth and distribution are simultaneously determined by the ED incentive system, whoever may lead to enforce the ED system, as will be shortly discussed. In this regard, the

---

[14] Sustainable development here means the development process to be not short lived but to continue, and do not mean the so-called environmental sustainability which may also be significant on its own.

[15] Becker (1957), who initiates the “economics of discrimination,” argues that the market forces of competition tend to eliminate discrimination in the marketplace. This paper can rephrase his point; the market function of economic discrimination based on economic performance will eliminate social discrimination disregarding it.

ED mechanism is a necessary institution for shared, inclusive, and sustainable growth by providing justly differential incentives and working as an enabling institution.

4. Market-led ED: Indispensable but Insufficient for Development

The GTED argues that all the market participants, such as consumers, suppliers, credit providers, financial investors, corporate firms, workers, and any other agents, have the propensity to choose the best-serving market performers, i.e., the tendency of ED. ED is a simple but fundamental behavioral rule of market agents in a complex open interaction for non-linear order transformative economic development. The GTED emphasizes that the market is fundamentally a motivational discriminator, incentivizing all market participants to do their best. Therefore, if the market is allowed to work properly, such a market’s ED function may promote shared, inclusive, and sustainable development even if the outcomes are unequal. However, the GTED also notes that imperfect markets cannot escape from the possibility of failing to correctly differentiate, i.e., treating the sources of development fairly. The market alone is not sufficient to incentivize growth and development because of market imperfections, i.e., knowledge market imperfections and high transaction costs associated with FR. To enforce ED, the market needs to be supplemented by other organizations such as corporate firms to internalize externalities.

5. Corporation: Invented to Internalize Market’s Development Failure

Hence, it is crucial to have non-market organizations that can save on transaction costs and strengthen market incentives to foster development. One significant lesson learned from the economic development process is the essential role played by transaction-cost-saving organizations in reinforcing the market's economic discrimination (ED) function by internalizing free-riding behavior. The corporate organization emerges as a private solution to address free-riding, as it can internalize high-cost activities like learning from the successes of others. This viewpoint stands in contrast to mainstream neoclassical economic thought, which typically advocates for government intervention as the primary solution for market failures caused by externalities or free-riding, without recognizing the alternative approach offered by private organizations. Especially, the corporate firm’s fundamental reason for existence beyond the market lies in its ED function by ‘metering’ productivity to fairly reward performance. It turns out that the corporate firm and the market epitomize ED. In this regard, the corporate firm is an extension rather than a substitute of the market as argued by Coase (1937).

In human society, capitalist corporate organizations, such as limited-liability joint-stock companies, were invented in the early 19th century after a long evolutionary history of small generic firms. The hierarchical structure of corporate organizations helps internalize transaction costs that would otherwise be incurred by the market, which relies on horizontal negotiations between parties and can result in positive transaction costs. Furthermore, joint-stock companies, as more complex organizations, have the potential to expand their capital base and undertake investment risks on an infinitely larger scale than individually- or family-owned firms prevalent during the pre-industrial revolution. With the proliferation of joint-stock corporations, know-how and technology have been more effectively internalized by corporate organizations on a massive scale, thereby significantly mitigating the problem of free-riding. Moreover, most significant innovations now take place within corporate organizations, minimizing the risk of falling victim to free-riders.

Corporations can now be seen as indispensable for promoting endogenous growth in a capitalist economy. Consequently, the capitalist economy can be considered a corporate economy, where private corporate organizations serve as the driving forces. However, the private economy alone, including the market and corporate firms, is insufficient for generating development due to information imperfections and incomplete enforcement of ED. Successful corporations that possess valuable know-how are constantly threatened by free-riders seeking to exploit their successes.

6. The Government's Vital Role in Development: A Theory of Government Policy

In the realm of economic development, it becomes imperative for the government to intervene by establishing economic discrimination (ED) institutions that go beyond the inherent ED functions of the market and corporations. Consequently, the government becomes an essential component of the economic development process, addressing the free-riding (FR) issues that remain unresolved by the market and corporate firms. Although this argument may bear some resemblance to the traditional approach of resolving negative externalities to prevent market failure, such as safeguarding intellectual property rights, its scope is much broader. FR is pervasive and ubiquitous in the real-world economy during the development process. Government intervention is particularly needed concerning ED institutions to tackle FR problems that are difficult to internalize by corporations, specifically FR among corporations. This stance represents a notable departure from mainstream laissez-faire, market-centric economics, which downplays the role of government in the economy and, more specifically, the necessity of industrial policy for economic development.

The ED perspective brings to the forefront the importance of government policy and institutions, paving the way for an alternative theory of government intervention known as the theory of enabling institutions for development. Firstly, the government must complement and strengthen existing ED institutions, focusing on fostering corporate growth-friendly frameworks alongside traditional market-friendly structures. Economic policies and industrial policies, aimed at promoting both small and medium-sized enterprises (S&MEs) and corporations in general, should be designed to provide differentiated incentives based on market performance, in line with the principles of ED. This should serve as the basis for new theories on industrial policy for economic development.[16]

Secondly, social policies, including welfare policies and policies aimed at social empowerment, ought to align with the principles of ED and can thereby serve as developmental policies. It is important to recognize that the ultimate goal of social policies should be to break the vicious cycle of poverty by incentivizing and enabling economically disadvantaged individuals via helping those who help themselves. Conversely, the government should avoid implementing economic egalitarian (EE) policies at all costs, as they counteract the developmental spirit of self-help.

Lastly, in practical implementation of ED policies, it is crucial that incentive differentiation is based on actual market performance rather than relying solely on abstract and uncertain future prospects as the primary indicator. While the former criteria may be imperfect, they are still considerably more transparent and objective than the latter. By prioritizing actual performance in designing differentiated incentives, the government can

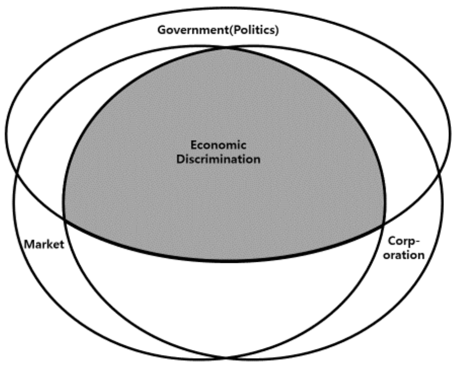
[16] See Jwa and Lee (2019) for a new theory of industrial policy as a development policy based on the GTED.

minimize corruption and rent-seeking behavior often associated with opaque and subjective criteria in government support policies. While other information, including future prospects, can be taken into account, actual performance must remain the critical criteria.[17]

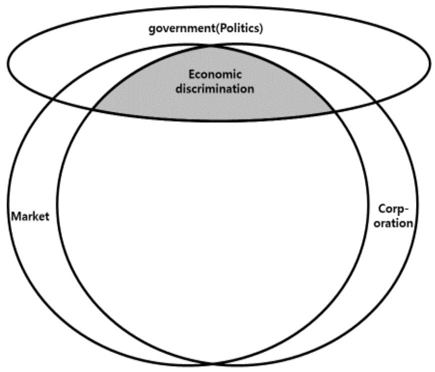
7. The GTED: The ED Union of Development Trinity

In the realm of economic development, the market, the corporation, and the government form an essential trinity that must work together as economic discriminators in order for an economy to have the opportunity to develop and transform itself. The GTED can be summarized as in <Figure 2-1>, which implies that development can be initiated and sustained only when the market, the corporation, and the government, work together to enforce *ED*. If any of them is absent, it is hard to achieve economic development. Therefore, all three institutions are necessary for economic development under the GTED. On the other hand, the GTED states that economic egalitarianism (EE), the antithesis of the ED, can result in economic stagnation. Especially the government, as the provider of the enabling institutions for development, must work hard to provide and keep the ED institution for the market and the corporation and not to disturb their intrinsic ED function. Suppose the government becomes careless in this responsibility. In that case, it weakens the function of ED. Thereby, the ED union of the development trinity shrinks, and the chance for the economy to grow and develop will decrease accordingly, as shown by <Figure 2-2>.

<Figure 2-1> GTED with Strong ED union



<Figure 2-2> GTED with Weak ED union



[17] See Jwa(2017a) and Jwa and Lee (2019) for more details on the ED policy as the success factors of government industrial policy.

The GTED is considered a general theory for several reasons. Firstly, it integrates diverse and competing economic perspectives, including neoclassical market-centric, government-centric, and corporate-centric views, as well as insights from institutional economics. It provides a holistic perspective linking corporations, governments, and markets by their shared economic discrimination functions. Secondly, it can consolidate various economic and political perspectives on economic development, offering a *positive political economy theory* distinct from normative approaches based on ideologies like Marxist political economy. The GTED argues that political ideologies and institutions, including the type of democracy, should align consistently with ED institutions rather than EE institution to foster development-friendly environments. This viewpoint suggests that the principle of ED should serve as the fundamental basis for national economic institutions to enable economic progress.

IV. GTED as A New Political Economy Theory for Economic Catch-up

1. GTED-based New Political Economy Theory

The GTED implies a new political economy theory that incorporates politics' role in development economics. The political regime can be development-friendly only if it embraces the ED institution. At the same time, the political regime becomes development-unfriendly if it becomes more inclined to the EE rather than ED institution. The former regime can be called the "economization of politics", as it economizes the politics, while the latter regime, as the "politicization of economy, as it politicizes economy. The critical point is, regardless of the specific types of political regimes, economic development can occur if the political regime supports the ED institution to be in place, while economic development is hard to come if the political regime adopts the EE institution. In practice, only if the political regime helps to economize the politics, thereby helping to centralize the state power to mobilize resources for development by ED policy, can economic development be made more accessible.[18] These implications can be summarized as a four-regime paradigm of political-

[18] A similar argument can be found in Acemoglu and Robinson (2012), also referred to in the next paragraph.

economy system by combining the economic institutions of ED vs. EE institution and the political institutions of democracy vs. non-democracy as follows: as market democracy (ED + democracy) and market authoritarianism (ED + non-democracy), which are development-friendly, and egalitarian democracy (EE + democracy) and communist/socialist dictatorship (EE + non-democracy), which are development-unfriendly.[19]

Interestingly, the New Institutional Economics and the mainstream economics profession, championing the market above all, have difficulty explaining how China lacking secure property rights and economic freedom, could have grown so fast since the 1980s. Chinese case remains an economic perplexity to the mainstream camp. Moreover, Acemoglu and Robinson (2012), while recently creating a buzzword of inclusive growth, also fail to provide a convincing explanation. They designate political democracy as an inclusive institution but non-democracy as an extractive institution, and the market economy as an inclusive institution but non-market economy as an extractive institution. In addition, they detail the inclusive political institution as a combination of *plural politics* and *sufficiently centralized government* without answering how those two elements could be harmoniously combined. Here they are unclear about how a sufficiently centralized government can be democratic or different from an authoritarian government. With this simplified two-regime paradigm of inclusive vs. extractive institution, they have difficulty explaining especially the successful cases of Korea and China under their mistakenly defined development-unfriendly, extractive political institutions.

However, the new theory can explain the success of Korea and China by invoking their similar political economy model. In the case of Korea, Park Chung Hee's capitalism thrived under authoritarianism, as it adhered rigorously to the ED institutions in formulating industrial, corporate, and rural development policies. Similarly, China, operating under a communist regime, followed Deng Xiaoping's socialist market economy and applied the ED institutions strictly to the collective farming sector and state-owned enterprises. Both countries operated under a political economy system called "Market Authoritarianism." Deng Xiaoping's guiding ideology of 'the rich-led nation' closely aligns with the ED incentive system.

---

[19] See Jwa (2017, 2017a) for more details of the new theory of political economy.

The same logic applies to Singapore under Lee Kuan Yew and Taiwan under Chiang Kai-shek [Market Authoritarianism], as well as to the western industrial revolution during the 18-19th century under incomplete democracies with colonization and slavery systems [Market Authoritarianism]. These examples illustrate how economic development thrived due to the implementation of ED institutions under non-democratic governments. In contrast, modern-day developed economies have experienced long-term stagnation due to the widespread adoption of EE institutions led by full-fledged democracies [Egalitarian Democracy]. Similarly, the former Soviet Union and old China under Mao Zedong suffered economic stagnation because of their adoption of communist EE institutions [Communist Dictatorship].

2. Preconditions for Economic Catch-up*:* ED-friendly Political Economy and Corporate-led growth

Now, based on the implications of the new political economy theory and some notable experiences of economic catch-up by Korea and China among others, the paper will try to identify the key necessary conditions for economic catch-up (Jwa, 2023).

The new political economy theory based on the GTED implies that, regardless of the specific types of political regimes, economic development can occur if the political regime supports the ED institution to be in place, while economic development is hard to come if the political regime adopts the EE institution. In short, only if the political regime helps to economize the politics, thereby helping to centralize the state power to mobilize resources for development by ED policy, can the development occur. If one borrows the expression by Acemoglu and Robinson (2012), a *sufficiently centralized government* that can economize the politics for the ED institution seems a necessary condition for the efficient government for development, while they insist on keeping this type of the government to be married only to plural democracy as already mentioned above. In this regard, we already implied that the political economy regimes under Korea’s Park Chung Hee and China’s Deng Xiao Ping were both development-friendly. Park firmly believed in the old maxim that God helps those who help themselves, and Deng in the ideology of the rich-led nation. They do implement those ED ideologies in national management by centralizing the government power. In this way, though, their political economy regime evolved as market authoritarianism deviating from Western democracy.

More importantly, Korea and China, adopting the ED institution via market authoritarianism and a corporate-led growth strategy, had implemented the GTED beyond the market-centric economics and the state-managed socialist economy. Both countries have risen for 30~50 years as one of the most potent industrial powerhouses in the world.[20] Both economies have proven that the economy can develop only thanks to the corporate growth as implied by the GTED.

Here, for more insight, it may be helpful to refer to the Schumpeterian vision of capitalism, socialism and democracy. (Schumpeter, 1942). He suggested the socialist revision to the liberal democracy that was subject to an intellectuals- and-labor unions-driven populism and to the capitalism that thereby was losing the spirit of creative destruction was necessary to revive growth dynamism. He was critical of liberal democracy influenced by scribbling intellectuals (not producing) and labor unions that are against the corporate-led capitalism.

While he ended up with the gloomy prospect for the capitalist corporate economy and rushed to the prospect for the rise of socialism after capitalism, he actually turns out to have proposed his version of new socialism that is different from the then Soviet Union. His socialism is designed as managed by capitalist corporations and entrepreneurship aided by the socialist dictatorship that helps control the intellectuals' populist sentiments and labor union activities against corporations rampant in liberal democracies that threaten the survival of innovative capitalism. In the end, his ideal socialism was the mixed regime of social democracy with the labor unions' power controlled by the communist party and corporate capitalism with the economy managed by capitalist entrepreneurs, which sounds pro-corporation rather than pro-labor.

[20] As of 2019, the Chinese share of Fortune Global 500 companies already overtook the US share, now challenging the economic power of the United States, even though China should go a long way to be comparable to the level of the US technology. China's growth for the last 30 years was possible at the expense of the shares of Japan and the United States. China overtook Korea in 2002, Britain, Germany, and France in 2008-9, and Japan in 2012. Korea is now comparable to Britain, Germany, and France, although slightly behind.

"After all, effective management of the socialist economy means dictatorship not of but over the proletariat in the factory. The men who are there so strictly disciplined would, it is true, be sovereign at the election, But Just as they may use this sovereignty in order to relax the discipline of the factory, so governments–precisely the governments which have the future of the nation at heart–may avail themselves of this discipline in order to restrict this sovereignty. As a matter of practical necessity, socialist democracy may eventually turn out to be more of a sham than capitalist democracy ever was…. In any case, that democracy will not mean increased freedom. And, once more, it will mean no closer approximation to the ideals enshrined in the classical doctrine." (Schumpeter, ibid., p. 302)

He in fact turns out to be a staunch supporter for a corporate economy rather than the failed socialism devoid of corporate system. Moreover, in this regard, the currently ailing democracy and capitalism of the US and other developed economies may have to listen to the Schumpeterian insight on the intrinsic weaknesses of democracy harming capitalism and his alternative vision for *socialism as the disciplined democracy and capitalist corporate economy*.

So far, his vision has never been seriously tested in reality yet. There are two notable examples close to the real test of Schumpeterian vision. One is Deng Xiaoping's China reforming communism to corporate-led socialism, formally called *socialist market economy*, with labor unions controlled by the communist party. A more interesting case is Park Chung Hee's authoritarian democracy revising the liberal democracy by controlling the anti-capitalist political, economic, and social ideologies but supplementing the market economy with corporate-led solid capitalism. It turns out that they reformed the respective pre-reform political economy system from the opposite direction but converged to the Schumpeterian vision of a pro-corporate political economy system. The former moved from communism to corporate socialism, an improvement on communism, while the latter, from weak capitalism to solid corporate-led capitalism, an improvement on the populist liberal democracy. In this regard, one can understand why and how Korea and China could rapidly grow under the market authoritarianism, both by corporate-led capitalism, and corporate-led socialism, respectively.

In sum, the GTED-based political economy theory and actual catch-up experiences imply that the ED-friendly political economy regime and the corporate-led growth strategy will be the critical conditions for successful economic catch-up.

V. Overcoming the Middle-Income Trap: Korea, Taiwan and China

1. Korea: Corporate-led Growth through Economic Discrimination

The era of Park Chung-Hee was a time when the long history of capitalism was compressed. The several hundred years of development from commercial capitalism to industrial capitalism were compressed into just 20 years of Park Chung-Hee's administration. Thanks to the export-led growth policy, merchant capitalism was firmly established in the 1960s. Since Korea was a country without natural resources and the shock of the war had not yet subsided, there were few domestic industries operating normally until the early 1960s. In the end, the economy had no choice but to rely on imports, and it was desperately needed to secure dollars through exports to meet the import demand. However, because there were no products to export, the country was barely supporting the national economy by relying on aid from the United States. However, since the United States was also taking a policy direction to gradually reduce foreign aid, the Park Chung-Hee administration began earnestly to foster domestic industries and secure dollars through export-led growth policies. The 1960s was an era in which the entire nation was driven to increase exports. In the early 1960s, the only products manufactured for export were small-scale, labor-intensive products (cotton fabrics, toys, shoes, etc.), but anything that could be sold had to be sold including agricultural products which were in short supply for domestic consumption and even human hair had to be exported.

What differentiated the export-led growth policy of Park Chung-hee from the export policies of other underdeveloped countries was that 'government-led economic discrimination' was thoroughly implemented in the various export policies. The criterion for economic discrimination was export sales. Various export promotion policies consistently rewarded the best export performers with tax and credit support. To strengthen the incentive system for export promotion, the government also established key administrative support systems. At the end of each month, the Export Promotion Committee headed by the President reviewed export progress and prepared necessary measures toward export targets. Furthermore, at the year-end export day ceremony on November 30st, led by the President himself, the government hosted the “export contest” to select the best export performers for further support; economic discrimination policies were at the center of the export policies. Through these export policies small and medium-sized enterprises with excellent exports naturally grew into large corporations. In the early 1960s there were few large corporations by today's standards. Most of the current large conglomerates in Korea were formed during the export-driven growth period in the 1960s. Korea in the 1960s created entrepreneurs and corporations that played a leading role in the export industries and succeeded in accumulating domestic capital. As a result, Korea was equipped with excellent corporations and entrepreneurs, and capital and skilled workers, which are essential requirements for moving to the next stage of industrialization.

Entering the 1970s, Korea introduced the heavy and chemical industry (HCI) promotion policy as a new industrial policy. The HCI promotion policy was a policy that transformed the Korean economy from merchant capitalism to an era of industrial capitalism. In the HCI promotion policy, the government maintained the same economically discriminatory policy mechanism by helping those firms that exhibited higher economic performances. Firms that demonstrated international competitiveness in their export activities by earning more dollars in the export promotion stage were allowed to enter the HCI sector with various government supports, thereby increasing the success probability of the nation’s industrial policy.

Korean industrial policy turns out to be a rare success case amongst 20th century history of industrial policy experiences in the world, thanks to “government-led economically discriminatory industrial policy”. It was quite a reckless challenge for a newly developing country like Korea, which had experienced colonial rule and the devastation of the Korean War, to attempt industrialization based on HCI. That is why no one in the traditional mainstream economic circles, advisory group of developed countries, or international development organizations such as the World Bank could support Korea's HCI promotion policy. Therefore, the success of Korea's industrialization can be a hope for many underdeveloped countries that lack resources and lack sufficient capital accumulation. Although the policy environment may be different, the possibility of compressed industrialization has been proven in Korea, so as the underdeveloped countries, they can have confidence in the success of industrialization. In particular, as a middle-income country that has not achieved the advancement of industrial capitalism, Korea's successful experience is bound to be an important benchmarking target.

2. Taiwan's ED policy and ICT Corporate Growth-led Development

Due to its unique position in international politics, official statistics on Taiwan's economy are lacking, and in-depth studies are rare. However, Taiwan's growth process provides a good example of how to avoid the middle-income trap by escaping from an economic structure dependent on foreign conglomerates and upgrading its own industries. In Taiwan, the Kuomintang government, which ~~im~~migrated from the mainland in the early stages of development, nationalized key industries such as large-scale heavy and chemical industries, as well as the so-called "people's livelihood industries." This was done to realize Sun Yat-sen's vision of a public livelihood economy that advocated preventing monopolies by large corporations and promoting economic equality.

Meanwhile, labor-intensive small and medium-sized enterprises were owned by the private sector. These small and medium-sized enterprises initially specialized as subcontractors for Japanese companies and later expanded their clientele to include companies in advanced countries like the United States. As a result, Taiwan developed an economic structure centered around small and medium-sized businesses operating through a global subcontracting network with large overseas companies, rather than relying heavily on self-sustaining domestic large corporations. This approach was driven by the ideology of the Kuomintang government, which aimed to prevent large private companies from exerting political influence by owning key industries. These measures were intended to ensure political stability in Taiwan. Taiwan's policy of fostering key industries through public enterprises ultimately failed, resulting in an industrial structure centered on small and medium-sized enterprises (SMEs), unlike Korea~~,~~ which succeeded in its industrialization strategy using private companies. It was difficult for Taiwan's SME-centered business ecosystem to continue its role as a driving force for economic leap forward, and the country experienced economic stagnation after the 1980s.

In contrast to Korea, Taiwan has easily integrated into the global subcontracting network from an early stage, largely due to differences in sentiment towards Japan's colonial rule. Korea has a strong anti-Japanese sentiment, and although the Park Chung-Hee administration actively utilized Japan's success know-how, it faced significant political challenges in the process. While Korea learned from Japanese companies and engaged in joint ventures during its industrialization journey, there were few instances of Korean companies becoming subcontractors to Japanese companies. Both the government and companies in Korea aimed to foster independent Korean companies, even while carrying a substantial amount of overseas debt. Although some argue that this growth strategy through foreign borrowing led to a default during the late 1990s Asian financial crisis, Korea managed to overcome it as the export capabilities of large corporations quickly recovered.

On the other hand, Taiwan had relatively little antipathy towards Japan's colonial rule, and even after obtaining independence, it maintained close economic relationships with Japan. Small and medium-sized enterprises in Taiwan formed a subcontracting network with Japanese companies during Japan's rapid post-war industrial growth. Despite the failure to foster key industries through public enterprises, Taiwan was able to maintain high growth rates through this subcontracting network with Japan. However, starting in the mid to late 1980s, Taiwan faced a decline in growth due to the limitations of its international subcontracting structure centered around small and medium-sized enterprises (SMEs). To overcome these challenges, the Taiwanese government started encouraging the growth of large private companies in the 1980s. Since the 1990s, the government has created the ICT industrial complexes and actively supported the development of ICT companies. As a result, large companies have emerged as growth engines. The rapid growth of ICT giants has increased Taiwan's top 10 manufacturing giants' sales as a percentage of GDP from 14.5 percent in 2000 to 71.3 percent in 2011. The proportion of large corporations has grown to an extent that surpasses the concentration of economic power in Korea.[21]

Despite the differences in industrial structures between Korea and Taiwan and the processes leading to a leap in growth, both countries demonstrate the effectiveness of the government-led corporate growth strategy through active economic discrimination (ED)

[21] According to CEO SCORE, as of 2017, the ratio of sales to GDP of Korea's top 10 companies was 44.3% (CEO SCORE press release, September 5, 2018). Also see Kim et al.(2014)

policy in avoiding the middle-income trap.[22] Of course, these examples support the proposition of the GTED.

3. China's Catch-up with Middle-income Countries and Prospect for MIT

China have successfully caught up with middle income countries thanks to her golden choice of ED-friendly political-economy regime and corporate-led growth strategy ever since the reform and opening in 1978. China adopted the well-known household-based cropping system to prioritize household share based on harvest performance over collective share by reforming the communist collective farming system, which brought a remarkable agricultural productivity growth.[23] China also promoted corporate growth by privatizing the SOEs or outsourcing the management of the remaining SOEs and stimulating competition among them. Moreover, the central government actively delegated the budget and power of governance to the local governments and promote competition among them for FDI and regional economic development. All these reforms were guided by the Deng Xiaoping's economic ideology of 'the rich-led nation', i.e., 'let some individuals and regions get rich first', which became a national slogan armed with the spirit of ED, paving the road for corporate growth and economic development. Under this political-economy regime, China has achieved remarkable growth over the past several decades.

Nevertheless, China has not yet caught up with the high-income countries and must first overcome the risk of the MIT. Looking at the slope of China's growth trend, the observation so far is that it does not seem likely that China will fall into the MIT. Since Xi Jinping advocated 'common prosperity', however, China's growth has slowed considerably. Of course, China's status as the 'factory of the world' is being shaken due to friction with the United States, and the inability to fully utilize cutting-edge technologies due to international sanctions is also a cause of concern for China's slowing growth. However, these are external factors and cannot explain all aspects of China's growth slowdown. The slogan 'common

[22] The high percentage of US patents acquired by Taiwan in the public sector compared to those in Korea (Wang, 2007) also shows the Taiwanese government's active role in industrial innovation.

[23] The new household-based cropping system was first introduced by Shao Jang-chon, Fen Yang-hyun, An Hui-sung in 1978.

prosperity' clearly runs counter to the spirit of ED and is an internal risk that could undermine~~s~~ the growth incentives of individuals and companies in China. 'The Rich-led Nation vs. Common Prosperity' can be conceptually expressed as 'ED vs. EE' and are exactly opposite institutional ideologies. If the *EE* spirit of 'common prosperity' permeates the entire country, China may not be able to avoid the MIT.

VI. Causes of the Middle-Income Trap

1. Lack of Globally Competitive Firms

As can be seen from the history of capitalism, the development of capitalism is, in fact, the development of enterprises. The development of enterprises does not simply mean that the size of the business increases. The development of a society's capitalism to a higher level means that companies within the system are sophisticated, that is, they produce products and services with high added value. This can be said to be a similar concept to the increase in complexity of products, which is a research topic explored by a group of scholars.[24] Just because a company that makes ten wagons grows into a company that can make a hundred wagons, it cannot be said that the company has become sophisticated, and the capitalist economy cannot be said to have developed to a higher level. Only when a wagon-making company grows into a car-making company can it be said that the company and the capitalist economy to which it belongs are advanced. A middle-income country means that many of the companies that make up the country's economy do not provide the same added value as those in advanced industrial countries. The middle-income trap is that the country is unable to get out of the stage where it cannot create companies at the level of advanced industrial countries.

Most underdeveloped countries rise to middle-income countries by raising their income level through the growth of labor-intensive assembly companies. In order to develop from a middle-income country to a high-income industrial country, a group of large-scale technology-led companies must be formed. If this process does not go smoothly, it will fall into the middle-income trap. In the case of Korea, it was able to avoid the middle-income country and develop to the next level because it succeeded in fostering big companies

[24] Hidalgo et al.(2007), Hidalgo and Hausmann (2009), Felipe et al. (2012)

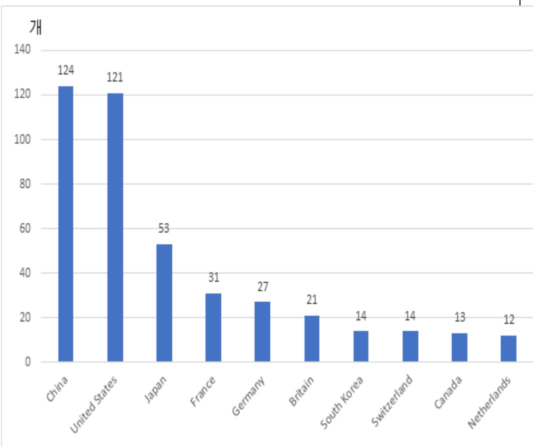
equipped with high technology. In the end, only when companies emerge from relying on cheap labor to becoming technology-intensive companies can they escape from the middle-income trap.

After all, how many companies with global competitiveness a country has can be an important (though not absolute) criterion for determining a country's income level. Looking at Fortune 500 companies, the number of companies owned by middle-income countries is very small. Among many middle-income countries, only some middle-income countries with large domestic markets, such as China, Brazil, and Russia, have 500 companies. China, while not being an exceptionally high-income industrial country, has the largest number of Fortune 500 companies in 2020. Of course, many of these Chinese companies are state-owned enterprises, so it is difficult to compare them flatly with other countries. However, over the past decade, many companies have entered the Fortune 500 at tremendous speed, and in 2020, they finally surpassed the United States and rose to No. 1. The figure below shows the rankings of countries with Fortune 500 companies from 1 to 10, and when the number of companies in these countries is combined, they account for 86% of the 500 companies. Also, only 35 countries have at least one company in the top 500.

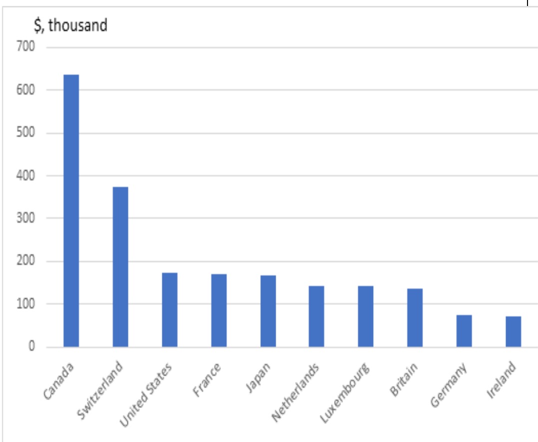
On the other hand, to consider the effect of scale according to the domestic market, the wealth of the 500 largest corporations per capita by country which is obtained by dividing the wealth of each country's Fortune 500 corporations by the population shows a quite different picture. In this case, Canada rises to the top spot, while Luxembourg, which has only one company in the top 500, moves to number seven. Korea ranks 11th, and China slips to 18th. In addition to the Fortune 500 criteria, it is difficult to find the name of a middle-income country even if you look at the list of global leaders by field announced by various private research institutes. For example, if you look at 'The Top 100 Global Technology Leaders' (2018), a list of IT-related global players announced by Thomson Reuters, there are no companies from middle-income countries on this list other than China and India. In the end, it can be confirmed that it is difficult to avoid the middle-income trap without globally competitive companies capable of producing high-value-added products.

<Figure 4> Fortune 500 Companies by Countries (2020)

<Top 10 Countries>



<Per capita asset of 500 companies by countries>



Source: Fortune, World Bank

2. Risks of Reliance on FDI by Labor-Intensive Foreign Companies

The easy choice of economic policy for underdeveloped countries to become middle-income countries is to rely on foreign investment. Since underdeveloped countries cannot provide high-level technical manpower, the industrial structure naturally forms around labor-intensive assembly foreign companies. As the economy grows depending on these foreign companies, income levels rise with wage levels. However, as ~~income rises,~~ wage levels ~~also~~ rise, so the country loses its comparative advantage of low wages. With the spread of globalization, cross-border investment by companies has become much freer, and so foreign companies are looking for alternative production bases as wages rise. In the end, foreign companies unable to pay wages above a certain level will not choose those countries as their production base. And therefore, if the wage level rises, they will not be able to attract foreign investment, creating downward pressure on workers' income growth. In addition, companies that cannot pay high wages tend not to have high technological capabilities, so even if there are many foreign-invested companies that rely on low wages, technology accumulation does not occur well in the host country. If such limitations become entrenched, even if an underdeveloped country becomes a middle-income country through foreign investment, it will not be able to grow beyond that level and will fall into the middle-income trap.

Ultimately, for an underdeveloped country to grow from a middle-income country to an advanced industrial country, the growth of its own companies with technological upgrading is essential, and economic growth dependent on foreign investment is bound to have limits. Of course, this does not mean that foreign investment is not important. Foreign investment is necessary for underdeveloped countries to spark growth and create jobs. But foreign investment itself is not sufficient to realize the advancement of the industrial structure, that is, the emergence of domestic companies. Apart from attracting foreign companies, only by continuously seeking the growth of domestic companies can a country grow from an underdeveloped country to a middle-income country and eventually to a high-income industrialized country. China can be a good example of this. In China, the central government was very active, but local governments also competed fiercely with each other and made every effort to attract foreign companies. At the same time, it continued to pursue the growth of domestic companies and industries by nurturing domestic companies via strategically designing foreign company investment systems and regulations to suit the domestic industry growth stage, such as mandatory joint venture and technology transfer.[25] Of course, China's method of regulating foreign companies is controversial in light of global standards, but as a result, it ranked first in the number of Fortune 500 companies as of 2020.

3. Policy Failure: Failure to Enforce the ED policy regime

The failure of sustained economic growth, and the resulting middle-income trap, is also a result of the failure to enforce economic discrimination systems. Usually, the government's market intervention for economic growth is materialized through industrial policy, but the middle-income trap means that this industrial policy has failed. In the case of industrial policy, if the ED mechanism is not institutionalized or if it fails to be implemented even if institutionalized, the industrial policy cannot succeed. In this case, the problems of industrial

[25] Of course, China's method does not apply equally to other countries. Due to the advantages of China's large market and low wages, foreign companies entered China while accepting regulations that would not have been possible in other countries (for example, mandatory joint ventures with Chinese companies). The Chinese government took these advantages and continued to strategically revise the regulations for facilitating technology transfer and promoting the growth of domestic companies.

policy pointed out usually in mainstream economics will manifest themselves, and it is likely to be used as a tool for corruption and collusion between politics and business. In the case of Korea, as the principle of ED was implemented through industrial policy, most of the leading light industrial companies that grew through the export promotion policy expanded their production areas into high value-added sectors and grew into global heavy and chemical industrial companies. When implementing the heavy and chemical industrialization (HCI) policy, only corporations capable of operating heavy and chemical industries were allowed to enter the HCI field. Because this principle of ED was inherent in the industrial policies of Park Jung Hee era, small and medium-sized enterprises of decades ago could grow into global conglomerates such as Samsung, LG, and Hyundai today. The flagship corporations of the Korean economy, which produced rice, noodles, soap, and toothpaste in the past, have now grown into corporations that produce semiconductors and displays, greatly amplifying the complexity of products. The power of this emergence via ED policy became the driving force that pushed the Korean economy from a middle-income country to an advanced industrial country. Jwa and Lee (2020) theorized Korea's successful industrial policy based on ED principles as a new development policy.

The growth model of the Park Chung-Hee administration is not a special policy episode applicable only to Korea. Depending on the endowed resources and economic conditions of each country, detailed policies can be designed differently from the heavy and chemical industry promotion policies of the Park Chung-Hee era. However, the Park Chung-Hee government's model of corporate development through ED contains universal principles that can be applied to any type of industrial policy. Despite this universality, however, it is not easy to maintain the principle of ED in actual policy implementation consistently because no political power – be it authoritarian or democratic – can be free from the temptation of politicizing the economy. This may be the reason why many underdeveloped countries have attempted economic development by referring to Korea's growth experience but without much success.

On the other hand, countries that have fallen into the middle-income trap have not succeeded in fostering large-scale companies with global competitiveness by failing to foster companies through ED principles in the process of implementing industrial policies. Some middle-income countries that uncritically accepted the fundamentalist liberal policies represented by the so-called ‘Washington Consensus’ without considering their own industrial levels also experienced significant growth stagnation. As liberalization swept the world, industrial policy was dismissed as a useless and outdated policy, and the government, under pressure to produce immediate economic results, became obsessed with attracting foreign companies. In the end, as the performance of economic policy was measured by attracting foreign companies rather than fostering domestic companies, the growth of domestic manufacturing companies was not achieved effectively, which ultimately resulted in the absence of companies responsible for upgrading the industrial structure.

VII. Conclusion

In this paper, we argue that ED is an essential principle for the qualitative growth of a country's economy. Transforming from a middle-income country to a high-income industrial country actually means that the country's corporations will transform into corporations that can produce high value-added products. Many underdeveloped countries have tried to foster competitive companies and tried to level up their economies through industrial policy, but there are not many success stories because the principles of ED are not implemented in the industrial policy. In order for an underdeveloped country to advance from a middle-income country to a developed country, the ED principle must be implemented in its economic policy.

Korea, one of the few countries that overcame the MIT, thoroughly implemented ED principles in carrying out industrial policy not only during the Park Chung-Hee era but also at least until the end of 1980s. The Park Chung-Hee government selectively provided tax and financial support to corporations in the process of promoting the heavy and chemical industry promotion policy. In addition to the ED-based tax and financial support, the industrial infrastructure necessary for heavy and chemical industry was also adequately supplied. Efforts to provide industrial infrastructure include the establishment of specialized technical high schools and engineering colleges, the attraction of excellent scientists from overseas to secure scientific and technological manpower, and the creation of large-scale industrial complexes to ensure economies of scale and agglomeration effects. Through the heavy and chemical industry promotion policy, Korea transitioned from an industrial structure centered on light industry to the one centered on heavy and chemical/high-tech industries. The advancement of the industrial structure was achieved through the combination of the corporate development policy through ED-based support policy and the supply of appropriate industrial infrastructure. This growth model of the Park Chung-Hee era in Korea suggests a solution to the emergence of corporations that overcome the trap of middle-income countries.

One of the most important aspects of ED is that politicization of the economy can be prevented through ED implementation. It is not uncommon for a country to approach economic problems with political logic rather than economic logic (or market logic), although there may be differences in degree. The principle of ED collapses when the economy is operated by a political logic for various reasons, such as support for the economically weak class, social integration, and balanced development. Growth incentives disappear in a society when the obvious market principle that a corporation (or person) that produces good performance is treated better is not followed. If a corporation puts more effort into backdoor dealings and securing political influence than pursuing efficiency and innovation, it cannot be competitive. In particular, if the principle of ED is not implemented in the industrial policy to support corporations, corruption and inefficiency surrounding government support will prevail, and the policy will inevitably fail. We have already seen many examples of this in South America and Africa.

Countries currently belonging to the middle-income group will be able to achieve sustainable growth without falling into the middle-income trap if they can nurture as many corporations as possible that can show their presence in the global market. This corporate fostering is possible only when the industrial policy implements the ED policy mechanism strategically. On the other hand, along with corporate development, industrial infrastructure must be supplied in a timely manner so that corporate growth can be achieved properly.

The consequences of failing to implement the principle of ED can be seen just by looking at the recent Korean economy since 1990s, needless to look at examples from other countries. The low growth of the Korean economy over the past decades is not unrelated to the disappearance of the principle of ED policy since the political democratization entering into the 1990s. The Korean economy has been in a state of declining trend growth ever since then due to various regulations on large corporations that go against the principle of ED, SME policies focused on protection and support disregarding performance, anti-business sentiment, and various welfare systems that do not consider sustainability. In addition, the concentration in the metropolitan area is only deepening due to indiscriminate, anti-ED regional balance policies which run counter to the regional growth incentives on the contrary of policy intention. Various free economic zones and industrial complexes created in the name of regional balance in many regions are not functioning properly, similarly due to the anti-ED policies. In addition, as the balance of power between labor and management collapses, skewed to the labor side, a small number of strong trade unions are reinforcing the rigidity of the entire labor market, and the duality of the labor market is becoming more and more serious. In the national competitiveness indicators announced by WEF and IMD, the labor sector is still at the lowest level in the world. Therefore, while the Korean economy of the Park Chung-Hee era served as a role model for escaping from the poverty of underdevelopment and overcoming the trap of middle-income countries, the recent Korean economy can be said to be a lousy teacher on the flip side, showing the reality of economic stagnation due to the disappearance of the principle of ED.

In conclusion, this paper consolidates the markets' ED function and the government's ED -corporate support function, all based on the market performance, into a grand theory of economic development. Note that industrial policy is not any different from ED-driven corporate policy and is, in fact, what the markets are doing every day by supporting high-performing individuals and corporations. In this framework, the market and the government should not be separated, and the government should closely follow the market's ED function. Both markets and the government should implement the ED-based industrial policy concertedly to promote corporate growth. This is the success-knowhow for industrial policy that economics has been searching for several hundred years. In the end, this paper implies that the ED-based corporate-promotion industrial policy by the markets and the government is the crucial precondition for poverty eradication, overcoming MIT, catching up with developed economies, and sustainable, inclusive and shared growth and development.

References

Acemoglu, Daron and James A. Robinson (2012), *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*, Random House, USA.

Felipe, Jesus, Utsav Kumar, Arnelyn Abdon, Marife Bacate (2012), Product complexity and economic development, *Structural Change and Economic Dynamics* 23, pp. 36– 68.

Gill, Indermit and Homi Kharas (2007), An East Asian Renaissance: Ideas for Economic Growth, World Bank, Washington DC.

Hidalgo, C., Klinger, B., Barabasi, A.L., Hausmann, R., (2007), The product space conditions the development of nations. *Science* 317, pp.482–487.

Hidalgo, C., Hausmann, R. (2009). The building blocks of economic complexity, *Proceedings of the National Academy of Sciences of the United States of America* 106 (26), pp.10570–10575.

Jwa, Sung-Hee (2017), *A General Theory of Economic Development: Towards A Capitalist Manifesto*, Cheltenham, UK ·Northampton, MA, USA: Edward Elgar Publishing.

……………… (2017a), *The Rise and Fall of Korea's Economic Development; Lessons for the Developing and Developed Economies*, Cham, Switzerland: Palgrave-Macmillan.

………………. (2018) Achieving the Shared Economic Growth, *The Pakistan Development Review* 57:1, pp. 45–71.

………………. (2018a) ‘Understanding Korea's Saemaul Undong: Theory, Evidence, and Implication’, *Seoul Journal of Economics*, Vol. 31, No. 2. 195-236.

……………… (2020), “Theory and Empirics of the Institutional Evolution of Economic Development: An Application to Korean Economy”, *Seoul Journal of Economics*, Vol. 33, No. 2, Summer.

………………. (2023) What Made Possible the Korea’s Economic Miracle?: Park Chung Hee’s Economization of politics, Economic Discrimination and Corporate Economy, *Review of Institution and Economics*, Volume 17, No. 1, February, 1-38, https://doi.org/10.30885/RIE.2023.17.1.001

Jwa, Sung-Hee and Sung-kyu Lee (2019), Resurrecting the Industrial Policy as Development Policy based on Korean Experiences: Towards a Pro-market Industrial Policy, *World Economics*, Vol. 20 • No. 4 • October–December.

Jwa, Sung-Hee, and Lee, Taekyu (2020), Economic Growth and Distribution: New Theoretical
and Empirical Perspectives, working paper.

………………..…….(2023) Why the World Gets More Polarized: A Positive Political Economy Perspective, Working paper under review by *Constitutional Political Economy*.

Jwa, Sung-Hee and Yong Yoon (2004), 'Political Institutions and Economic Development: A Study in Economic Discrimination and Political Philosophy', Seoul Journal of Economics, 17(3), 275–307.

Lee, Keun (2013), *Schumpeterian Analysis of Economic Catch-up: Knowledge. Path-Creation, and the Middle-Income Trap*, Cambridge University Press: United Kingdom.

……, Jongho Lee and Juneyoung Lee (2021), 'Variety of national innovation systems (NIS) and alternative pathways to growth beyond the middle-income stage: Balanced, imbalanced, catching-up, and trapped NIS,' *World Development*, Volume 144, August, https://doi.org/10.1016/j.worlddev.2021.105472.

Lin, J. Y. (2010), *New structural economics: a framework for rethinking development*, Development Economics, Office of the President, The Word Bank.

…………. (2012), *The quest of prosperity: how developing economic can take off* , Princeton University Press, New Jersey.

………....(??), Industrial policies for avoiding the middle-income trap: a new structural economics perspective, *Journal of Chinese Economic and Business Studies* 15(1):1-14

…………and Volker Treichel (2012), *Learning from China's Rise to Escape the Middle-Income Trap A New Structural Economics Approach to Latin America*, Policy Research Working Paper 6165, The World Bank Development Economics, Vice Presidency, August

O'Rourke, Kevin H. (2000), Tariffs and Growth in the Late 19th Century, *The Economic Journal*, Vol.110, pp.456-483.

Schwalbach, Joachim and Anja Schwerk (1999), Stability of German Cartels, in *Competition, Efficiency and Welfare: Essays in Honor of Manfred Neumann*, Springer, Boston, MA

Schumpeter, Joseph A (1942), *Capitalism, Socialism, and Democracy*, New York: Harper & Row.

Simon, Herbert (1991) ‘Organizations and Markets’, *The Journal of Economic Perspectives* 5 (2): 25-44.

World Bank (1993) *The East Asian Miracle: Economic Growth and Public Policy,* NEw York:
Oxford University Press.

Wang Jenn-Hwan (2007), From technological catch-up to innovation-based economic growth: South Korea and Taiwan compared, *Journal of Development Studies,* Vol.43, pp.1084-1104D.

A Proposal to Establish the Korean Brand of Development Cooperation with Africa

Abstract

Korea is yet to formulate a concrete strategy for development cooperation with Africa that duly takes into account the situation of Africa as well as Korea's own comparative advantage as development partner. What is all important but is often neglected is Korea's valuable development experience where the human capital is at the forefront. The growing income gap between Africa and the rest of the world is a cause for much concern requiring sober reflections. Hence, it would be most timely that Korea establish a national 'brand'of development cooperation with Africa that captures the key factors for Korea's transformative development and which corresponds to the critical needs of Africa for development. This calls for an objective understanding of the reasons for Africa's underdevelopment and the characteristics of the Korean development model. A major shift in development approach towards strengthening the initial conditions, most notably human capital, is vital for Africa. This paper argues that human capital is the single most important enablers of policies and institutions, and for bringing about change. Taking this into account, 'holistic human development', comprised of four key fields of human capital development, is proposed as the Korean brand of development cooperation with Africa

Key Words: Korean brand of development cooperation with Africa, initial conditions, holistic human development, human capital, social capital, participatory development, multitasking development.

I. Introduction

The objective of this paper is to explain why establishing the Korean brand of development cooperation with Africa is timely and meaningful at this juncture, and more fundamentally, what should be the contents of the brand, and what Korea needs to do in order to make good on this brand. Obviously, the relevance of the Korean brand proposed in this paper may well extend beyond Africa to other developing regions, but this study is specifically about the African region.

In commercial terms, a brand can be defined as “the identity and story of a company that makes it stand out from competitors that sell similar products or services.”[1] Nation brand is, in other words, national image which is a source or component of the soft power of a nation. Simply put, soft power is the ability to appeal through attraction or by being ‘attractive,’ while hard power is about exerting influence coercively or with material means like bribes (Joseph Nye, 2004).

Experts point out that a nation brand is the outcome of a country’s economy, politics, education system, and culture, and that all countries have a ‘brand’ or ‘image’; and when a country properly manages its image, this can help the country’s businesses to have a competititive edge in the global market.[2] The power of a brand hinges on the perception of a particular product, company or a country, in the eyes of beholder or customer. It is about such things as credibility, reliability, and reputation of products, and preferences or tastes on the part of ‘customers’ also matter.

In light of this, formulating Korea’s brand of development cooperation with Africa requires a sound understanding of many aspects of Korea’s development and what lessons could be drawn from the Korean case, etc. What is equally important is to have comprehensive and in-depth knowledge of Africa’s development issues. The biggest issue with the current state of Africa’s development is that most African countries still remain poor and underdeveloped without having realized real transformative development.

Obviously, the prime responsibility for the shortcomings lies with the African countries themselves. But it is also true that international development architecture, as a result, has not been scrupulous or energetic enough to be effective in bringing about the progress expected of Africa. While economic growth of most African countries remained sluggish over the longterm, international development community may have experienced donor fatigue, and could have fallen into a ‘mannerism’ stemming from their long bureaucratization process and business-as-usual mode of doing things.

African nations need a genuine sense of urgency and turnaround in their attitudes and approach in this respect. It is ironic that the situation of Africa largely remains the same, and some suspect that it has actually regressed from their early days of independence, while the international development community has reached the level of sophistication that is unprecedented. And there seems to be many blind spots that obstructed the countries from making objective and rational judgement. A good example is a general lack of awareness of the centrality of competition and competitiveness. Possession of material resources would be of little avail if the fundamental principles of economic development are not properly understood and embodied for action.

Why the ‘Korean model of development’ (Jong-Dae Park, 2019) deserves attention and is considered to be relevant and beneficial for Africa’s development is because its approach is very practical and action-oriented. This is meaningful in light of the fact that the purpose of development is to bring about changes for the better; it is about practice, not theory. What should be also heeded is the fact that the Korean development model crystallizes the fundamental or core principles of economic development that are thought to have been largely forgotten, ignored, or misunderstood so extensively within the development community and intellectual circles alike.

The historical trajectory and current state of Africa’s economy, the inherent limitations of the role of international organizations for propelling Africa’s economic transformation, along with the merit of Korean development approach, all underscores the need for forceful Korea-Africa collaboration that is conducive to igniting Africa’s economic dynamism. Scrutiny of the Korean case reveals that the human factor counts the most for national development, and that promotion, utilization, and management of human capital are the front and center in the Korea’s model of development.

In this context, this study proposes the establishment of the Korean brand of development cooperation with Africa that places the ‘holistic human development’ at its core. In essence, Africa’s challenges are not due to the lack of resources or means but to the ‘managment’ problem which all comes down to human factors; this necessitates the earnestness on the part African countries to adopt the ‘holistic human development’ approach. The four key areas (work ethics and mindset change training; formal and specialized education, and science-technical training; leadership managment training; and community/civic-mindedness education) of holistic human development are what Korea is deemed to have a comparative advantage over other development partners.

This paper is organized as follows: section II looks at Korea’s soft power and its diplomatic engagement with Africa; section III elaborates on the reasons why Africa needs a fundamental shift in development approach, and the necessity to rethink the existing economic development approaches; section IV explains the proposed Korean brand of development cooperation with Africa: the factors to consider, the contents of the brand, and Korea’s task relative to the establishment of the brand; this is followed by a conclusion that gives a final thought.

II. Korea’s Soft Power and Diplomatic Engagement with Africa

1. Characteristics of Korea’s Soft Power

The concept of soft power was coined and popularized by Joseph Nye in his book *Bound to Lead: The Changing Nature of American Power* (1990), and was elaborated in detail in his later work *Soft Power: The Means to Success in World Politics* (2004). According to Nye, there are three kinds of power: the power to coerce by threat, the power to induce by payments, and the power to attract and co-opt others to do what you want; the first two are hard power and the last one is soft power. The concept of soft power was devised as a international political theory of power but it is widely used today as a more everyday term, to depict primarily ‘cultural’ power or attraction.

Korea’s image or reputation in the world in terms of nation brand and soft power has been enhanced over the years. Korea ranked 10th in nation brand (2021 and 2022) in the Brand Finance Nation Brands which quantifies the financial value of countries as well as companies. In the soft power rankings, Korea ranked 12th in the Brand Finance’s Global Power (2022), 8th in the ISSF’s World Soft Power Index (2022), 4th in

Monocle's Soft Power Survey (2022), and 19th in Portland Soft Power 30 Index (2019).[3] 15 years ago, in 2008, Korea's GDP ranking was 13th, about the same as today, but its nation brand ranking was only 33rd. We can see that over the last decade or two, Korea's nation brand improved significantly, and its soft power ranking has also reached new heights, reaching 2nd in 2021's Monocle's survey. Interestingly, in the US News and World Report's Most Powerful Countries rankings (2022), which look at how much influence counries have and their political, economic, and military power, that is mostly the hard power aspects, Korea ranked high, at 6th.

A country's rankings in these different indexes show quite a variance as they employ different methods, and in many case include opinion surveys which are highly subjective. What is interesting is that soft power rankings tend to go along with the hard power status measured in economic power, GDP, which means that economically powerful states tend to be also powerful in their soft power. There can be discrepancies between a country's 'raw power' and 'attractiveness' as the 'beauty is in the eyes of beholder'; hence maintaining or enhancing one's soft power status depends on how well a country manages its image, as perceptions can change.

Unlike the components of hard power like GDP and military strength which are 'manifest', soft power resources are abstract and qualitative, therefore difficult to measure. Although in principle, all countries and even non-state entities like NGOs, corporations, and individuals, for that matter, can possess soft power, in general terms, the soft power is the attribute of 'great powers' and why Korea's soft power has come into conversation is because Korea's overall national strength (mainly economic) has risen to the level of significance in international relations.

Korea's soft power can be characterized as the 'creative type' as its appeal derives centrally from its 'extraordinary' transition from the status of one of the poorest countries to that of most developed; creation of new opportunities for economic growth and partnerships, and social and political pluralism and development are enblematic of its success; accordingly, these facets are mostly attractive from developmental perspective and so Korea's soft power basically appeals more to developing countries and mid-powers rather than developed countries and major powers.[4] Keun Lee points out that Korea was able to catch-up with the frontrunners of industrialization not by simply following their path but rather by effecting technological leap-frogging through the interplay between state policies and firms' strategies.[5]

The United States, as a super power, boasts a whole range of soft power resources including political, idealistc, institutional and ideological elements, and some Western powers like Britain and France have similiar features as these. In comparison, sources of Korea's soft power are rather cultural and economical in nature, and 'sentimentally' attractive in a unique way; its sources are 'national image' (economic dynamism), development experience or know-show, information technology (IT), Korean Wave (K-POP, Korean dramas, movies, fashion and beauty, food, etc.), goverance (e-government), PKO activity, political pluralism, among others.[6]

To elaborate, Korea can provide an option for developing and developed countries alike, either as a partner or a reference, arising from its status as both non-Western and pro-Western country that has achieved the most difficult dual goal of full-scale economic development and democratization in a most successful way.

For many developing countries, Korea provides a meaninful reference for economic development, as an alternative to the Western model of development. In the early 1990s, when the talk of the developmental state was in fashion, Korea was much in the limelight; then, Korea and the developmental state discourse lost a lot of glimmer with the advent of the Asian financial crisis. However, the discourse on developmental state has regained international attention with the 2008 global financial crisis.[7] And the Covid-19 pandemic may have reinforced this momentum. For developed world or the Western camp, Korea is a good example and partner to advance their agenda. Starting as one of the poorest nations, Korea has achieved a rare success in the national development during the latter part of the 20th century by actively conforming to the mainstream international regimes as a responsible member of the world community.

2. Korea's Engagement in Development Cooperation with Africa

Korea, an "aid recipient-turned donor" of the late 20th century, became a member of OECD, the community of donors, in 1996, and has risen to the ranks of the wealthiest donors by joining the Development Assistance Committee (DAC) of OECD in 2010.

Korea's 'Initiative for Africa's Development', the first of its kind for Korea, was announced in June 2006.[8] Since then, Korea has launched various programs and events like Korea-Africa Forum (KOAF) (ministerial meeting held regularly, in principle every 3 years) and Korea-African Union (AU) Cooperation Framework (2022-2026).[9] Besides, these engagements organized by the Ministry of Foreign Affairs, other economic ministries of Korea, like the Ministry of Planning and Finance (Korea-Africa Economic Cooperation: KOAFEC) (bi-annual), and the Ministry of Trade, Industry and Energy (Korea-Africa Industry Cooperation Forum: KOAFIC) (annual), have also held regular minister-level meetings with African states.

While much efforts and resources need to be mobilized to sustain the existing engagements with African countries, and holding such regular events can be meaningful in itself and have merits, these can just turn out as once-off activities that do not go far enough to bringing about fundamental change in the Korea-Africa partnership. Rather, such endeavours pale when compared to the scale of participation of Africa leaders in the case of China's Forum on China-Africa Cooperation (FOCAC) and Japan's Tokyo International Conference on African Development (TICAD) which are all summit meetings that are regularly held. India also holds India-Africa Forum Summit (IAFS) every three years. And we need not mention the level of influence of the Western world on Africa, given Europe's historical ties with Africa and the U.S.' global status.

Other non-DAC members that are active donors of Africa include the Gulf states likes Saudi Arabia, UAE, Kuwait and Qatar. Also, Turkiye has been actively engaging with African countries at various levels, notably with Africa-Turkey Partnership Summit, and has deepened its footprint in Africa through proactive diplomatic and political engagements, as well as expansion of commercial ties.[10]

"The new scramble for Africa," as goes the headline of the Economist (March 7th 2019), cannot be taken literally but such development of late is a reality to be reckoned with by Korea which is yet to figure out a well-thought out and credible strategy for partnership with African countries. The competitive nature of international relations around Africa requires Korea to seriously contemplate about its 'comparative advantage' vis-a-vis other major players, in order to appeal to African partners by differentitating from others and maintaining its relevance to African countries.

Korea cannot compete head-on with the likes of China and Japan in terms of the amount of provision of development assistance. Although Korea ranked the 10th largest economy in 2021, not only it has limited 'hard power' when compared to these nations but its ODA as percentage of GNI is only 0.17% (29th out of 31 OECD DAC members), which is a far cry from the UN target of 0.7% and OECD DAC members' average of 0.36% (2022); Korea provided a total of $2.8 billion as Official Development Assistance (ODA) in 2022, ranking 17th among the DAC states (OECD.org). The total ODA to Africa amounted to $57.6 billion, about one fourth of the global ODA for the year 2019; the U.S. was the largest provider of ODA to Africa (17%) (Germany 8%, UK 7%, France 5%, Japan 3%, and Korea 1%)[11].

Although voices have been raised on the need to strengthen cooperation with Africa in the past, there has not been a comprehensive and systematic strategy of Korea for the African continent. The ODA budget alloted for Africa (2023) is 19.4% of the total ODA, compared to 38.5% for Asia. While the amount of assistance to Africa has been steadily on the rise (Korea provided $590 million in 2021 compared to $260 million in 2012), its visibility and impact have been meagre relative to other traditional donors and China due to Korea's short history as a donor and the inferior amount of assistance.

For instance, Korea lacks the capability in local networking and accessibility, and faces difficulty in linking or integrating development projects. And the fragmentation of aid caused by much of the one-time, small-scale type of projects conducted by various ODA implementing entities of Korea also curtails and limits the impact of ODA. Along with continued increase in ODA, what is deemed all important for the overall enhancement of the performance of Korea's ODA is to significantly upgrade the capabilities of ODA-related human resources including policy makers, experts, researchers and on-the ground work staff from the long-term perspective. This requires not only investing substantially in enlarging the necessary manpower but also adopting a more comprehensive and strategic policy towards Africa with the renewed thinking.

To this end, a meaningful step has been taken recently with the government's annoucement of the 'Africa Development Cooperation Strategy' (Feb. 2023) which is deemed the first official strategy for development cooperation with Africa approved by the joint body of the relevant ministries. It's **vision** is "beyond aid, become partner"and the **goal** is to "contribute to Africa's realization of sustainable development goals by doubling the assistance to Africa (compared to 2019) by 2030; it has the **support strategy** for (i) 'safe Africa' (areas of support: health, food, refugee and conflict), (ii) 'rising Africa' (areas of support: agricultural-fisheries industry, manufacturing, diversification of industries, and urbanization), and (iii) 'future Africa' (areas of support: human capital, climate change, digital transformation, equality and trust); and the **implementing strategy** consisting of (i) support for capacity building when building infrastructure (to enhance efficiency); (ii) focused support to the principle development partners and sectoral base countries (to expand the impact); (iii) cooperation with specialized agencies (to overcome limitations in local networking, etc.).[12]

This strategy differentiates support according to regions and the countries' level of development, considering their conditions. The focus of support by the region is as follows: North Africa - strengthening the administrative capability (e-government, etc.), strengthening key infrastructure and systems for industrialization (transportation, customs, property rights, etc.) and supporting green economy technology (new and renewable energy, etc.); West Africa - strengthening medical system (expansion of medical insurance, establishment of national health facilities, etc.), implementing agro-industrialization (processing and marketing) and strengthening industrial and export capability, modernization of public administration (e-government, etc.) and strengthening digital capability, alleviating urban problems and obstacles for development (expanding women's opportunity, etc.); Central Africa - support for settlement of peace (protection of refugees, recovery of dispute victims, improving security, etc.), enhancing inclusiveness (basic medical and food support, etc.), mid-longterm climate response (restoration of forestry, etc.); Eastern Africa - support for emergency crisis (food shortage, climate damage, health problems, etc.), enhancement of agricultural productivity and strengthening rural community base), enabling a virtuous cycle of transitioning to manufacturing and urban development, supporting the foundation for future leaps (ICT/high-technology, highly skilled human resources); Southern Africa - support for transition to green economy (new and renewable energy, etc.), strengthening basic social infrastructure (health, agriculture, etc.)[13]

And for each region of Africa, countries are divided into two categories - least developed countries and middle-income countries - to provide different kinds assistance fitting their situation and needs. For example, least developed countries would normally get assistance in such sectors as health, food, agriculture, human capital development, and environment, while middle-income countries would receive the kinds of assistance for industrialization, urbanization, digitization, climate change, promotion of society of equality and trust, etc.[14]

Putting in place such a strategy for Africa that is seen to be more refined, logically coherent than the previous policy papers or researches is an obvious progress and should be commended. However, this is only a small step in what Korea must do to become a true partner for African development worthy of its capabilities and reputation. What is required is to formulate more focused and qualitative schemes that can complement such general policy blueprints.

III. Why Africa Needs a Fundamental Shift in Development Approach

1. Africa's Development Trajectory

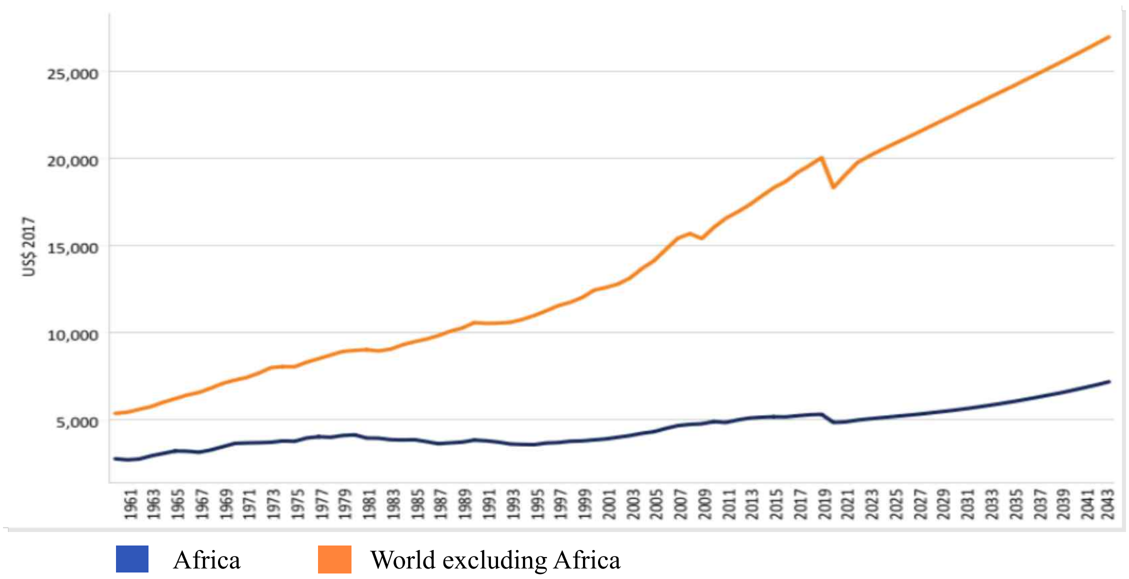
The growing income divergence between Africa and the rest of the world is alarming. In 1960, GDP per capita of Africa was about half of the average of that of the rest of the world; it fell to below 40% in 1986, and below 30% in 2011; average GDP per capita of Africa actually declined by more than \$600 over 1980-1995 period; then from 1995 to 2008 (global financial crisis), Africa experienced its most sustained growth period since 1960 but in 2018, Africa's GDP per capita is still only 27% of the average for rest of the world; and by 2040, it is projected to be less than one quarter.[15]

Over 50 years have passed since most of the African countries became independent yet many of them still struggle to achieve transformative development befitting their potential. What is required are fundamentally different thinking and endeavors for Africa's development instead of doing the same things that yield only the same results. But one may ask, why haven't there been serious reckoning, self-reflection and actions taken in Africa to change the course? Is it due to indifference, unawareness, misperception, or lack of will? These are the questions that need to be asked over and over again because doing the same thing day after day is not improving the situation.

Although in the past, there have been moments of optimism and even excitement for 'rising Africa,' and some African countries indeed have registered and sustained a high economic growth, the truth of the matter is that the gap between the rest of the world and Africa in terms of real economic growth and the level of income has only widened and is projected to continue widening in the business as usual scenario. Figure 1 and 2 shows what will happen if African countries fail to make a 'drastic' turnaround in the method and efforts for economic development; in such case, they will not be able catch up even with other developing regions of the world, not to mention the increasing burden that they have to bear with rapidly growing population, when there is not enough economic growth in the current projected path.[16]

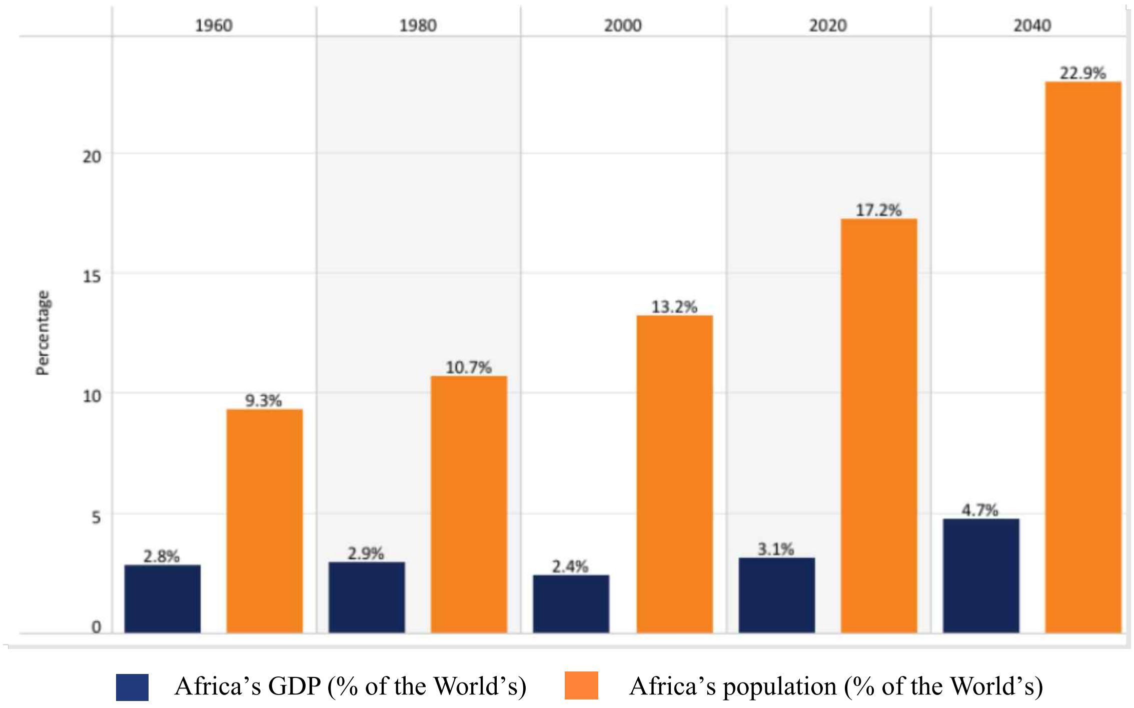
[Figure 1] Per Capita GDP (Real) of Africa and the Rest of the World (1960~2043)

(Measured in PPP, includes forecast up to 2043)



Source: "Current Path: Thematic Futures", ISS African Futures (Jan. 1, 2023)

[Figure 2] Africa's GDP and Population in Percentage of the World's



Source: "Current Path: Thematic Futures", ISS African Futures (Jan. 1, 2023)

2. The Need to Rethink Economic Development Approach

1) Thoughts on the Theories or Approaches of Economic Development

looking at the bigger picture, there are common pitfalls to avoid for development in today's world. They include historical, geographical, natural and environmental determinism or fatalism, overrating the influence of external environment and factors, and 'over-reliance' on 'given' resources. These are the hazards that many fall into in both the developing and developed world alike when tackling such questions as the African development. If these are the problems or tendencies of the 'left' or the 'progressive' camp, then there is also the problem of the 'right' or those who have rigid ideas of economic principles and how economy works. The consequence of the dominance of ‘economic orthodoxy’ is the entrenchment of superficial and myopic thinking that is not helping Africa’s economic development because these vastly neglect human agency and how economic development is really attained.

Development should really be about practice instead of theories, In this respect, developing countries and the international community alike need to overcome ‘market versus state’ kind of simplistic and narrow thinking, for instance, and come to terms with what really brings about development in the broad sense.

The ‘market versus state’ debate is foolhardy and pointless because both the market and the role of government are essential for economic development. What’s more, there is not enough mention of the role of the enterprises in the mainstream economics. In the work of theorizing, there is a trade-off between enhancing focus and accuracy and broadening the scope to better reflect reality and relevance. Neoclassical theory, which is the dominant theory in economics, has the advantage of simplicity, logical clarity and rationality but its advantage is also its disadvantage: its narrow assumptions that economy is comprised of rational self-interested actors, and that their transactions results in market equilibria when free from external interference are unrealistic; The neoclassicists are, in effect, confusing what is ‘normative’ and what is ‘positive’.[17]

Markets do not exist in a vacuum and for them to function properly, many basic and important conditions need to be in place. The market is just one of the many components that make up the ‘complex economy’; Sung-Hee Jwa elaborates on this, and lays out the two key concepts of the “holy trinity” of economic development and the principle of “economic discrimination” which form the core of his theory. According to Jwa, in markets, interactions by various players including individuals, private and public organizations take place; these, alongside other elements like formal institutions, informal institutions, political leadership and natural environment that make up the complex economy all have bearing on markets.[18] The market, business firms and government are the ‘holy trinity of economic development’ or the three most important institutions that need to work together by conforming to the principle of ‘economic discrimination’ (treating differences differently, applying the rule of economic meritocracy) to steer the economy towards growth and real progress, argues Jwa.[19]

The logic of the idea of 'holy trinity' is that the market, although the most fundamental mechanism of capitalist economy, is not perfect and market failure inevitably occurs; in such instances, companies, especially the large corporations, can rectify the market failure owing to its accumulated expertise and capacity in information access, among others. However, business firms also have limitations in their ability and can lack the necessary information to make the rational choices in market transactions. So where companies fail, government can intervene to help correct such failures but of course, government failures also occur. Therefore, when these three key institutions effectively complement each other against failures by strictly conforming to the principle of economic discrimination, this will drive the economy very powerfully towards dynamic growth and transformation.

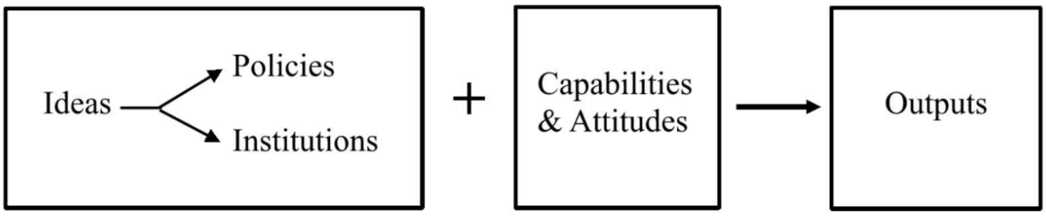
The concept of 'economic discrimination' is purely an economic term, meaning economic accountability, and the world 'discrimination' should not be understood in the political sense. It means duly rewarding good performance while penalizing poor performance. Markets in general 'pick the winners' of commodity suppliers; consumers choose products based on their merits in terms of the quality, price or personal preference; such is the act of economic discrimination.

For African countries where the degree of market development is generally low, greater attention must be given to building and strengthening the necessary conditions or factors that make markets function effectively. Where markets are underdeveloped, weak and small, it doesn't make sense to just look at the market and expect it to do the wonders. This is where the neoliberalist approach can only come short or fail to bring about the desired economic outcomes. For Africa, in particular, the real game changer lies not in the aadoptionof seemingly good economic policies but rather in tackling with all seriousness the task of building and strengthening the 'initial conditions'.

2) Capabilities and Attitudes Matter for the Outcome of Policies and Institutions

Ideas or theories are turned into policies, and these in turn, evolve into institutions. But ideas, policies and institution, however well thought out they may be, do not implement themselves automatically and as intended. In order that these produce the

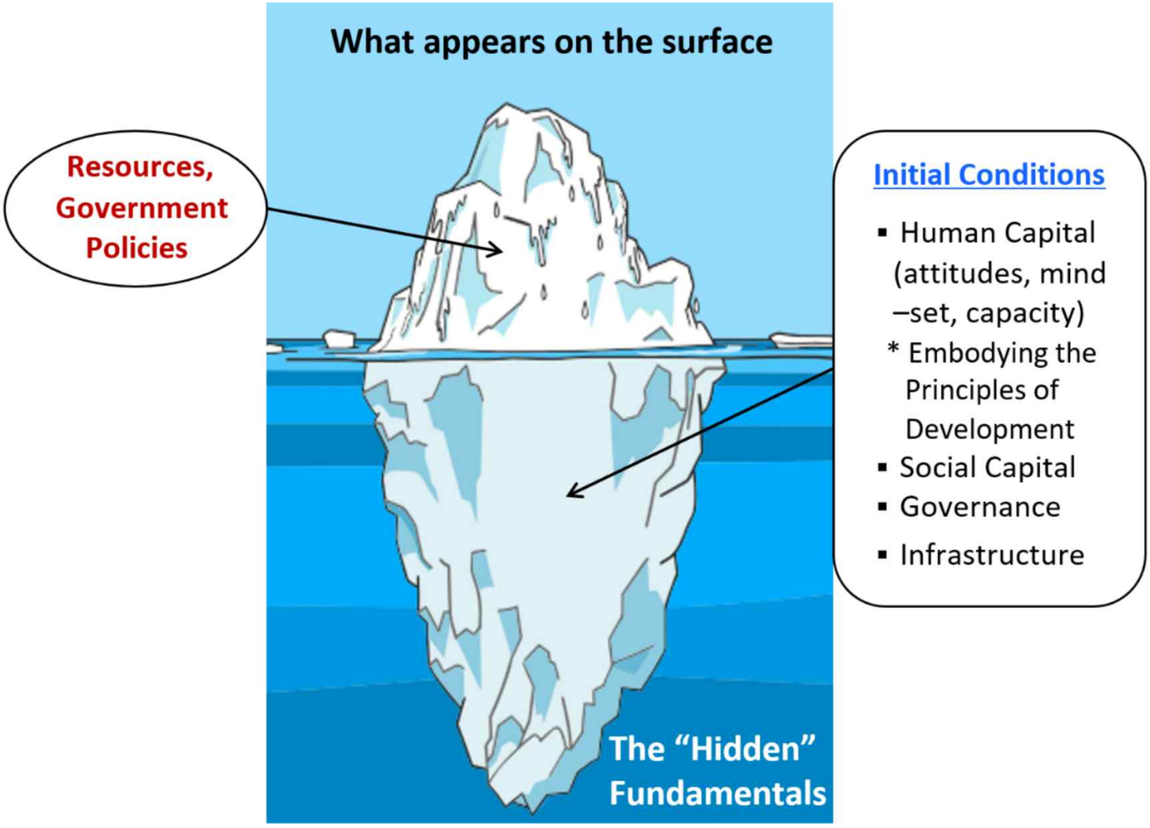
[Figure 3] Human Capital (Capabilities and Attitudes) as Enablers of Policies and Institutions



desired outputs, something must be at work, and these are the initial conditions including human and cultural factors like capabilities, attitudes or behavioral culture. Figure 3 above illustrates this. So much has been made of the importance of institutions and word 'institution' is popularly uttered as a panacea. Emphasis on institutions seems to have grown stronger, as could be seen in such works as *Why Nations Fail* by Daron Acemoglu and James A. Robinson. But 'institution' is a loose term that can mean different things to different people, and for institutions to function, they need to be implemented by people. How institutions are implemented makes all the difference and hence capability and attitude really matter. What makes human capital crucial is the fact that both the capability of state and that of the private sector are inherently depended on human capital.[20]

Establishing good laws and regulations are commonly seen as the best indicators of sound institutions. But this is only half true and it can be quite misleading. Institutions do not work automatically just as human knowledge and intelligence don't bring about outcomes by themselves. What actually produces the results are not the statutes or 'what is supposed to be' but the actual 'doings' of the people in the complex chain or network of division of labour, also affected by numerous external factors.[21] For a capitalist market economy to flourish, what are necessary are not only the institutions like 'free markets' but also *capabilities* like 'entrepreneurship' on the part of the businesses, and the 'development mindedness' on the part of the population in general, and so many other things.

[Figure 4] Initial Conditions - The Hidden Fundamentals



Development discourse is replete with 'policy implications' but rarely is there follow-up discussion on who, exactly, will implement these, and whether the body in charge can actually do so; and many developing countries and their organizations are mired in a "big stuck" or "capability trap"; "they cannot perform the tasks asked of them, and doing the same thing day after day is not improving the situation; indeed it is usually only making things worse."[22] According to the 1996 World Bank assessment, almost all African countries' capacity regressed in the last 30 years; the majority had better capacity at independence than now.[23]

At the heart of the matter lies the issue of 'having versus doing' which is widespread around the world today; because so much emphasis has been placed for so long on such things as 'knowledge', 'ideas', 'rights', and 'institutions,' - the things to *have* for the betterment of our lives - many seem to have forgotten the ‘doing’ part, the act of undertaking things that actually produces the outcomes from the former. Today, the world seems to be entrenched increasingly in the ‘having culture’ while the ‘doing culture’ has debilitated steadily over time. This phenomenon is universal but is perceived to be most serious in the developing world, Africa in particular. The effects of the global phenomenon of ‘having culture’ prevailing over ‘doing culture’ could be seen in the tendency of the mainstream international community being so much attached to ‘abstracts’ and ‘latencies’ rather than ‘real actions’ and ‘concrete outcomes.’[24]

While everyday economic news and indicators, and government measures draw our attention, there seems to be very little awareness of, or concern for, the issues regarding the initial conditions. The former constitutes a ‘tip of iceberg’ while the latter corresponds to the hidden fundamentals which are far more significant than it seems (figure 4). Development and utilization of initial conditions such as human capital (appropriate capacity and attitudes to do the job, embodiment of the fundamental principles of development), social capital, governance, infrastructure, etc., are crucial for the successes of businesses and economic policies of developing countries.

IV. Proposing the Korean Brand of Development Cooperation with Africa

1. Factors to Consider

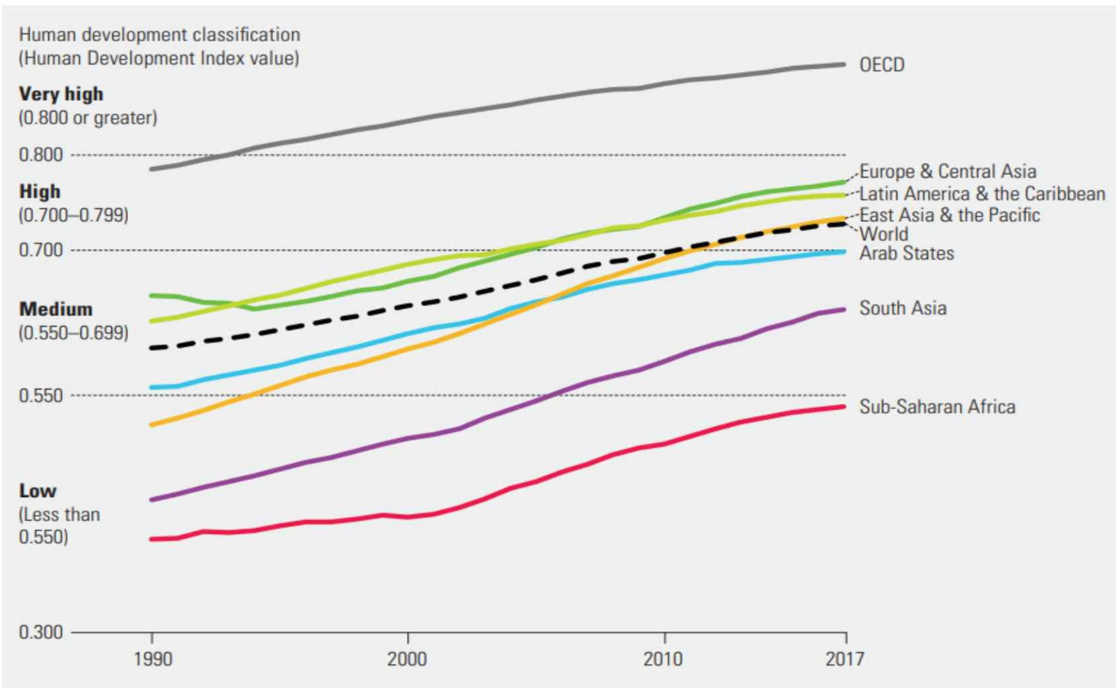
1) The Main Root Cause of Africa’s Underdevelopment and the ‘Missing Links’ to Its Development

When it comes to the causes of Africa’s continued poverty and lack of development in economic, social and political fields, intellectual circles tend to maintain standardized explanations instead of searching for fundamental reasons and seeking new and effective solutions. This may be due, in part, to the influence of “glo-politicization” or the phenomenon of politicization and spread of ‘political correctness’ the world over. Popular explanations for Africa’s underdevelopment include colonial legacies, neo-colonialism, ethnicity, neopatrimonialism, weakness in institutions, governance, and democracy, problematic role of the state (bad policies, abuse of power, etc.), natural conditions, wide-spread corruption, globalization, and so forth. While each of these may have certain validity, when assessed one by one, none of them can be singled out as the major cause for Africa's predicament today.

Rather, the main root cause which has the most relevance in reality is considered to be the 'mindset' issue that concerns the frame of mind for development; Africa's developmental challenges arise not because it lacks natural endowment and external assistance but because there is a fundamental problem of management and implementation of policies (Jong-Dae Park, 2019). Such problem pertains to human capital (more specifically capability and attitudes), arguably the most consequential of all the initial conditions. Figure 5 below is illustrative of the state of human capital development of the Sub-Saharan Africa.

Development is about changing for the better, and the essence of development in the simplest terms comes down to two elements: change (the magnitude or intensity of) and speed (with which the change is made). It is all too obvious that without

[Figure 5] Human Development Index Values, by Country Grouping, 1990-2017



Source: UNDP, "Human Development Indices and Indicators - 2018 Statistical Update", 2018.

a fundamental change in the mindset of leaders and the population in general, real progress cannot be attained. "Setting up goals and expressing aspirations is an easy part, but this would be of no avail if they are not followed up with concrete actions. There have been serious misperceptions, negligence or intentional 'looking the other way.'"[25] The mindset change is truly the name of the game for Africa's development since 'provoking' people to change is the best way to get out of the predicament.

Having identified the 'mindset' as the main factor for Africa's underdevelopment in broad terms, we can specify in more detail, a number of 'missing links' to Africa's development: (i) sense of nation, (ii) development mindedness, and (iii) strong role of government (Jong-Dae Park, 2019). As for the term 'missing links', the word 'missing' does not mean 'absence' in literal sense but which means 'weakness' or lacking in relative terms. The 'sense of nation' concerns the task of nation-building; 'development mindedness' is a key aspect of human capital conducive to development; and the significance of 'strong role of government' is quite self-evident. These missing links have the characteristics in that they are not about material resources or means; what they are about are the mindsets, practical and functional traits and capabilities.

2) Characteristics of the Korean Development Approach

We can look at the characteristics of Korea's development approach or model from two viewpoints. Firstly, in terms of 'principal drivers' of Korea's development and second, in terms of the value of the Korean model, that is, its applicability and relevance to the developing countries. As for the 'principal drivers', the 'economic discrimination' and strong 'development-mindedness' constitute the two principle drivers of Korea's transformative development (Jong-Dae Park, 2019). The principle of 'economic discrimination' which was rigorously applied is what drove Korea's economic growth and industrialization; concurrently, active promotion of 'development-mindedness' brought about social-political development of Korea.

Regarding the value of the Korean development model with respect to its applicability to Africa, there are unique features of Korea's development that can have positive implications for developing countries of Africa and other regions: (i) Korea started out as one of the poorest nations, war-torn and deficient in natural resources; (ii) Korean development model is all about pragmatism and producing concrete results, based on the fundamentals of development like the 'economic meritocracy' and prioritization of human development, and oriented towards breaking the status quo; (iii) the Korean example highlights the need for 'multitasking' and how this can work at the early stage of development; (iv) it is the success story of growth of businesses and industrialization; (v) Korea's development mode is 'participatory', characterized by the active involvement of all the entities - individuals, social groups, private firms and government - and their close collaboration for economic development; (vi) the approach covered all economic sectors (light industry, heavy industry, agriculture-rural, construction, etc.) and regions (urban and rural areas); (vii) it is a highly successful case of targeting human capital, actively utilizing and fostering it, and which also effectively employed social capital for meeting various challenges the nation faced.[26]

What is particularly notable of the Korean model of development is the dual track-approach of simultaneously working on both economic and social fronts which yielded very positive synergistic effect, which also led to democratization. Instilling a strong sense of economic accountability in the businesses and fostering a strong sense of development mindset in the general public couldn't have been more effective and timely under the circumstances.

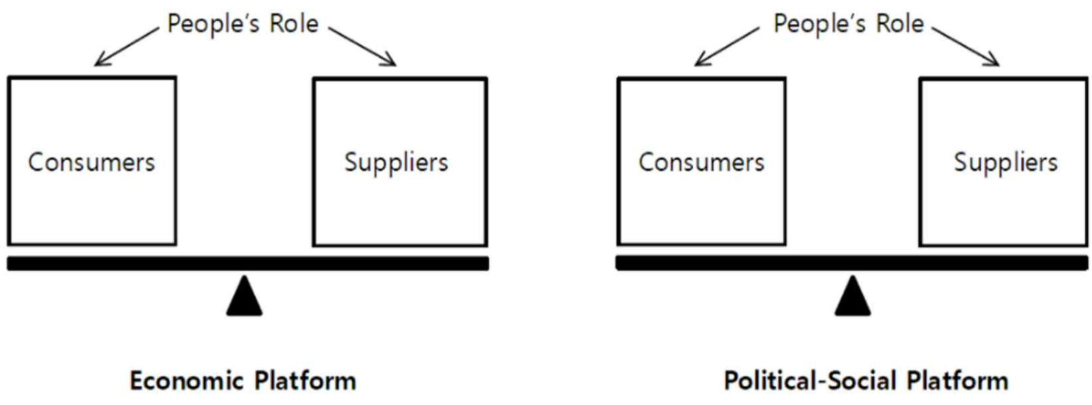
These, in effect, produced the maximal outcome of 'compressed development' in economic, social and political spheres. The Korean success story is a testament to the veracity of the maxim "adversity is opportunity"; Korea used the challenges and crisis that it faced to make changes and exert extraordinary efforts which are otherwise difficult to do under the normal circumstances. In terms of mobilizing resources, it shows what is possible when using every resource available and seeking any resource attainable.

'Multitasking' and 'participatory development' are also the key features of the Korean development that are not readily recognized. The idea of 'multitasking' holds quite a significance meaning for developing countries; the ability of multitasking is a good indicator of whether the countries can actually get the things done as planned, irrespective of the level of resources available. Often, various development projects in Africa are delayed or prematurely break down because they are not undertaken in conjunction with other tasks or projects that need to be carried out in sync for the project in question to proceed and operate properly. A simple example is a project to build a fruit process factory of scale in a rural area where infrastructure connection, power supply and stable production of fruits are needed. Obviously, the challenge gets much tougher for the major national projects of scale.

The success of multitasking endeavours may not necessary hinge on the level of expertise or skill per se but rather on the level of 'discipline' with which they are performed like meticulous planning, broad oversight, strong commitment and sense of responsibility, responsiveness to contingencies, etc. Multitasking is beneficial in that it brings the desired changes faster than when things are done one by one.

Lastly, the significance of 'participatory development' cannot be overemphasized; if there is a concept that best captures the essence of national development, this might be it. Participatory development, as depicted in figure 6, means "a large segment of the populace, the majority of people directly and actively participating in the process of development, in economic, social, and political realms, in the 'balanced' manner, as both *consumers* and *suppliers*."[27]It took centuries for the Western nations to arrive at

[Figure 6] Participatory Development



Source: Jong-Dae Park (2022, p.92)

where they are today, and their development process was participatory: it was the efforts and participation of the people that drove economic and political development. The growing middle class owing to the industrial revolution greatly empowered the people vis-a-vis the ruling elites, leading to democratization and political pluralism.

Developing countries cannot afford to consume hundreds of years like the European nations to achieve economic and political development and there is absolutely no reason to do so. Much shortened process of the realization of this duo goal is possible today, as can be seen in the case of compressed development of Korea.

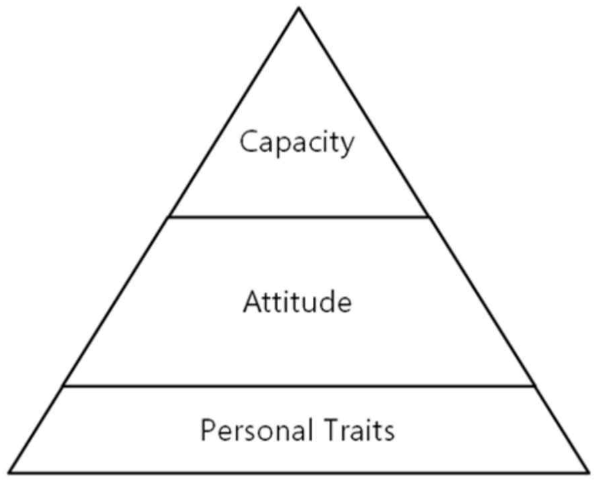
2. 'Holistic Human Development'as the Korean Brand of Development Cooperation with Africa

1) The Need to View Human Capital in the New Light

The core theme of this study is human capital; western nations have tirelessly stressed the importance of institutions but what's more consequential is human capital and social capital. Human capital is vital because it is a starting point of everything, and social capital which is also important for development is an extension of, or which is based on, human capital. We talk of markets and institutions as if these are non-human factors but these exist because of humans, impacted by human behaviours.

The concept of human capital needs to be understood in the new light. The conventional wisdom of human capital is that it meant school education primarily; Human Development Index (HDI) which was developed by the UN is a more comprehensive indicator of human capital that takes into account three elements - education, health, and income level. As universal indicators, they certainly have usages and merits but these also have limitations, and there have been various alternative indicators proposed. Education in the form of accumulating knowledge or having a formal education does not necessarily produce the outcomes intended. Equating knowledge (or school education) to capacity is problematic and naive because knowledge does not necessarily translate into action. Hence, we need to have a more accurate and realistic terminology of human capital.

[Figure 7] The Make Up of Human Capital



Source: Jong-Dae Park (2021a., p.113)

The more objective and logical way to view human capital, as shown in the figure 7 above, is that it comprises of three key elements: capacity, attitude, and personal traits. Capacity here means mostly the level of education and professional expertise. Meanwhile, attitude can be defined simply as "how you think or feel about something"[28]; or in a more complicated way like "a manner of thinking, feeling, or behaving that reflects a state of mind or disposition the way a person views something or tends to behave towards it, often in an evaluative way."[29]

Attitudes, although difficult to gauge, must be considered as an important factor of human capital as it influence actions and turns the 'latent capability' into the 'manifest capability'. Attitude can be also understood as 'mindset' and from the development standpoint, its significance is enormous. 'Personal traits' should also be recognized as an element of human capital as they matter; every person has has his/her own uniqueness or individuality which can count as 'asset'. Individuals attract others or have influence over them when they are 'appealing'; for public figures and celebrities, in particular, the personal traits constitute major sources of their 'soft power'.

2) What the ‘Holistic Human Development’ is All About

One of the aims of this study is to bring to attention the fact that a fundamental ‘gap’ exists unmistakably between the international ‘norms’ and and the reality on the ground in Africa, and that something must be done to narrow the gap with a sense of urgency. In this respect, international development partners bear their fair share of responsibility, and Korea also should be reflective on its part, if it indeed wants to become a serious partner of Africa.

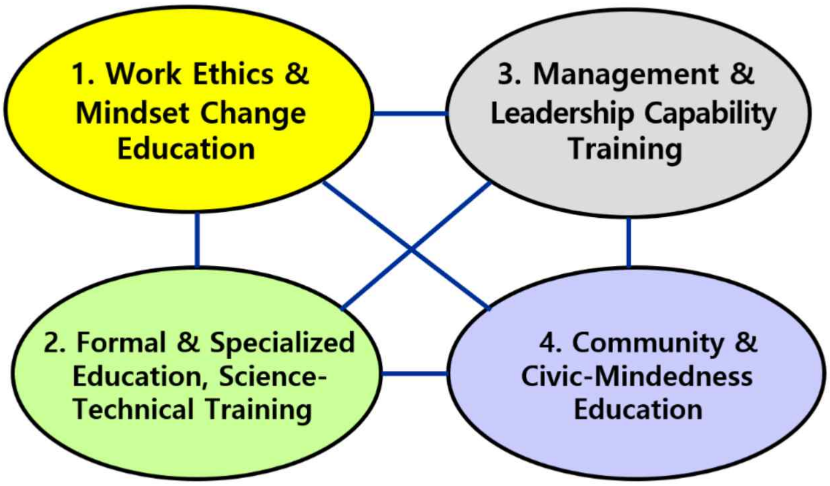
The Korean mode of development, having human capital or ‘holistic human development’ at its core, is believed to be meaningful and beneficial for African countries to adopt or apply. In this context, Korea should promote ‘holistic human development’ as a main brand of its development cooperation with African countries. Highlighting the importance of holistic human development and focusing on the ways to collaborate with Africa to realize tangible outcomes can uplift Korea’s credibility as a development partner of Africa.

The proposed idea of ‘holistic human development’ consists of the following four areas of human capital development: (i) work ethics and mindset change education; (ii) formal and specialized education, and science-technical training; (iii) management and leadership capability training; and (iv) community and civic-mindedness education, as shown in figure 8 on the next page.

Economic, social, and political development are all interlinked and these must be sought spontaneously countries today because there is no reason or excuse whatsoever not to do so. Because this is not only possible, it may be the only possible way to realize comprehensive and sustainable development. Herein lies the rationale for holistic human development for Africa. Holistic human development will not only empower people in their all-around ability, it will surely have positive effects on various business and development projects that are taking place today.

The holistic human development approach is well-suited to tackle the issue of the ‘missing links’ to Africa’s development which are ‘sense of nation’ (for nation-building), ‘development-mindedness’, and ‘strong role of state’ (government performance and accountability). The ‘unconventional’ ‘work ethics and mindset

[Figure 8] The Idea of Holistic Human Development



change' (No.1) and 'community and civic-mindedness' (No.4) can effectively supplement the 'conventional' 'formal and specialized education, and science-technical training (No.2) and 'management and leadership capability training' (No.3) to produce highly synergistic outcomes.

Regarding 'work ethics and mindset change', Korea's Canaan Farmers School is a renown institution (private) that specializes on strengthening people's work ethics through mindset change, and has been active since 1950s. And the Korean government, on its part, launched various public projects in the 1950s for the empowerment of the people; the 1960s was the period of modernization movement spearheaded by the government; then in the early 1970s, such 'mental reform' movement to overcome poverty and lead better lives culminated with the launching of *Saemaul Undong* or the New Village Movement that turned into a pan-national movement beyond the rural regions. Korea has traditionally placed emphasis on ethical values and social norms, and these were taught in schools throughout the period of modernization drive and thereafter. Korea's Saemaul Undong Center, the official organization of the movement, continues to exist to this day, now focusing more on overseas development projects.

The importance of formal and specialized education, and science-technical training (No.2) that is most commonly sought, is obvious. So many African elites, and the growing number of middle class, have education in universities in the West, and many African officials and experts work in international organisations at the top positions. But do higher education and specialized training, taking place mostly in upper and elite class, translate into positive changes or progress in real terms? And the mismatch between university graduates and the jobs available has become a serious issue across Africa. There are limitations of formal education only and education only for a handful of population; not only do far greater number of people need to have education, they need to have a variety of different kinds of education or training. Development is not to be bestowed but which should be earned. Herein lies the importance of participatory development, and the holistic human development approach.

'Community and civic-mindedness education' (No.4) is geared towards building a sense of nation and community, or 'togetherness' to foster and strengthen the social capital or fabric. For public officials, it is about enhancing public service delivery through upgrading of their capability and accountability. In most African countries, the task of nation-building is far from complete, as would acknowledge Paul Kagame, President of Rwanda. This has no small implications since the sense of national belonging or nationhood is a foundation for national development.

Sometimes personal traits, national identity, civic values and work ethics can all come together to produce positive outcomes for nations, as in the case of Nordic countries, and Korea as well. Nordic people are known for their strong civic-mindedness and social capital; a Finnish expert points out that for Nordic citizens, "well-being state is not about getting free money without working but...it is something that we attain for ourselves through our own efforts".[30] There is also a national trait of Finland such as "sisu" which deserves as our attention; it has such meaning as 'grit', 'guts,' and 'perseverance' and for Finnish people, it is believed to be more than a personal quality; it is also a national identity that they are proud of.[31]

Lastly, the importance of management and leadership capability training is self-evident and need not explaining. This capability is hugely important at every level of society and for all types of organizations and communities. The four key areas of holistic human development presented here actually are interlinked, supplementary, and mutually reinforcing. In the case of African countries, all these need to be worked on *together*, and when the overall human capital is improved as a result, government policies and institutions, and the private sector will yield the outcomes much sought.

3) Korea's Task for the 'Holistic Human Development' Cooperation

What Korea needs to be cognizant of when pursuing partnership with Africa based on the brand of 'holistic human development' is the current state of discrepancy or mismatch between what is prescribed to Africa by the international community, and the situation of Africa finds itself in. The nature of the problem here is that there have been many instances of overly simplistic, dichotomic thinking, and misunderstanding on the part of the both African countries and the international community.

For instance, most of the African countries, in their early stage of development, adopted import-substitution policy which ended up as a failure because, unlike Korea and other East Asian countries, they did not implement it in a proper manner. Import-substitution policy itself is not at fault; the lack of understanding of what it entails plus the lack of commitment and endeavour were the culprits; in effect, Sub-Saharan Africa had a 'bad' model of protectionism compared with East Asia's good model.[32]

Such shortcomings do not appear only in specific policies but also in the approach of economic policies in general, such as regarding the role of government. And on the matter of 'market versus the state', the orthodox school of economics and the mainstream development community should share the blame of being superficial and naive. Tensions exist between Africa and international community also with respect to the universal values and institutions including democracy, rule of law, human rights, and governance. Whenever there has been issues or obligations on these subjects, African countries would normally react negatively.

A fundamental dilemma for African countries could be also be found on such issues as climate change, energy, agriculture/food, water, infrastructure, industrialization, etc. Foregoing fossil fuels sounds rather aspirational given the situation that most African nations find themselves in; expanding new and renewable energy capacity requires huge resources and investment, and the countries need to greatly expand infrastructure and have a long way to go towards industrialization. Going green cannot be done with just ideas and will, as this requires so much resources, as well as capability which means that most of all, rapid economic growth is essential. When abject poverty and unemployment persist, can the sustainable development goals (SDGs) be properly worked on? And the inherent trade-offs between the individual goals with the SDGs further complicates African countries' endeavour in the regard.

These are some of the real challenges facing African nations, reflecting the fundamental gap between aspirations and reality on the ground. Korea can play a meaningful role in collaborating with Africa to bridge such gap based on the holistic human development approach. Without doubt, Korea needs to comply with OECD policies and guidelines as an OECD Development Assistance Committee (DAC) member. But the OECD acknowledges and welcomes the best practices of its individual members and the contributions they can make where they have advantages. Therefore, Korea needs to take more active stance in terms of 'agenda-setting' in the international development fora; currently, Korea is past the stage of just benchmarking and following the standards of developing countries, as it is now in a position to present positive initiatives for the benefit of many.

Developing and executing the holistic human development cooperation with Africa should not be about public relations activity; public diplomacy is a sort of advertisement of a commodity; confidence in a commodity brand will quickly dissipate when it does not live up consumer's expectations. Packaging and advertising goods are necessary, but what counts is the content of the product. To make good on the brand of 'holistic human development' cooperation, Korea must be credible and allot far greater resources and efforts for policy analysis, research and planning, and most of all, for strengthening the capability of executing the policies once these are formulated.

Establishing the Korean of brand of holistic human development in a systematic way, in itself, poses a big challenge for Korea. It can draw a lot of discussions and debates on Korea's profile and capabilities of present as well as of the past. But serious reflections on such serious agenda are worth the endeavour, for all the reasons laid out in this paper.

V. Conclusion

The purpose of this study is to propose the Korean brand of development cooperation with Africa which is pertinent for both Africa and Korea. To derive this brand of Korea, development experiences of both Korea and African countries were examined. Since the second half the 20th century, there have been very few developing countries that had successfully transitioned to the status of fully developed country in such a short span of time. Of such countries, Korea stands out as an example of human capital serving as the most powerful driver of comprehensive development.

Africa, on the other hand, registers the lowest level of human capital development of all regions. The concept of this Korean brand was conceived by matching what are perceived as Africa's most 'critical needs' with Korea's arguably the most critical factors of success, which happen to all correspond to the human factors of development. The idea of holistic human development reflects the major areas that should be worked on for developing nations to realize rapid, comprehensive, and sustained development.

The intention of this study is to also provoke thoughts on the fundamentals of development. A key takeaway from this study is that the ideas, policies, and institutions that the international community has been able to come up with, even the most 'elaborate' ones like the sustainable development goals (SDGs), cannot produce the desired outcomes when the 'fundamental principles' of development are not observed and implemented.

Transcending space and time, the iron rule of mankind is that what must be done must be done, especially if it concerns the question of people having a better life. Life itself is a tough proposition, and improving the lives of the community of nations cannot be more daunting. But it seems that the business of development has become the business of welfare. This is a wrong direction to take because development should be about independence, capability, and empowerment of the people. The big question is how to stimulate the much needed change in the societies of Africa that are not so used to changes. Something unconventional and creative is much in need. Korea may well take on this formidable task with the initiative that puts holistic human development at the front and center.

End Notes

[1] Allie Decker, “What is branding? Understanding its importance in 2023,” March 15, 2023. https://blog.hubspot.com/marketing/branding

[2] Eugene D. Jaffe, *National Image and Competitive Advantage: The Theory and Practice of Country-Of-Origin Effect* (Copenhagen: Copenhagen Business School Press, 2001), translated into Korean by Gun Chul Shin and Kyoung Gu Yoo, *National Image and Business Competitiveness* (Seoul: Korea Economic News, 2005), pp.3-4.

[3] There is some difference in the survey methodology between Monocle’s Soft Power Survey and Portland’s Soft Power 30 Index. Monocle is a global affairs and lifestlye magazine, its survey relies more on qualitative inputs from its experts while Portland’s index relies more on data-driven and quantitative approach. Monocle evaluates such factors like culture, media presence, business ties, global engagement, and diplomatic outreach while Portland considers political factors such areas as government and leadership approval ratings along with other factors like foreign aid.

[4] Jong-Dae Park, Korea’s Soft Power Foreign Policy towards Developing Countries (Ph.D dissertation) (Seoul: Kyungnam University, 2009) (Korean).

[5] Keun Lee, *Economic Catch-up and Technical Leapfrogging: The Path to Developmment and Macroeconomic Stability in Korea* (London: Edward Elgar Publishing, 2016).

[6] Ibid., pp.76-99

[7] Takagi, Yusuke, Veerayooth Kanchoochat and Tetsushi Sonobe, “Introduction: The Nexus of Developmental Policy and State Building” in Yusuke Takagi, Veerayooth Kanchoochat and Tetsushi Sonobe (eds.), Developmental State Building: The Politics of Emerging Economies (Singapore: Springer Open, 2019). p.1.

[8] Korea already gained an observer status in the African Union in 2005, and has been providing AU Cooperation Fund starting from 2013 and AU Peace Fund from 2016 on a yearly basis.

[9] Korean government is planning to hold a special Korea-Africa summit meeting for the first time in 2024.

[10] Turkish Airlines operates direct flights to over 50 cities in Africa as of 2021; and “In some ways, Turkey’s strategy in Africa echoes China’s, including familiar rhetoric on political meritocracy and mutal partnership - a contrast to U.S. and European approaches, which tend to focus on democratic violations.” (Nosmot Gbadamosi, “Turkey Deepens Its Footprint in Africa,” *Foreign Policy*, December 22, 2021.

[11] ″Africa Development Cooperation Strategy”, a policy paper presented to the 44th International Development Cooperation Committee, Republic of Korea, Feb.9, 2023. p.2.

[12] Ibid. p.3.

[13] Ibid. p.18

[14] Ibid.

[15] Jakkie Cilliers, *The Future of Africa: Challenges and Opportunities* (Cham: Palgrave Macmillan, 2021). p.3.

[16] For the future projections, the ISS African Futures (South Africa) utilizes the International Futures (IFs) modelling platform developed and hosted by the Frederick S. Pardee Center for International Futures at the Josef Korbel School of International Studies, University of Denver.

IFs is an integrated forecasting platform for thinking about long-term, country-specific, regional, and global development, according to the ISS African Futures (https://futures.issafrica.org/).

[17] Robert Skidelsky, "How and How not to do Economics", *Union for Radical Political Economics*. (Lecture 3: Economic Growth) Sept. 11, 2019. https://urpe.org/2019/09/11/ how-and-how-not-to-do-economics-with-robert-skidelsky/

[18] Sung-Hee Jwa, *A General Theoy of Economic Development: Towards a Capitalist Manifesto* (Northamption: Edward Elgar Publishing, 2017). pp.57-58.

[19] Ibid. pp.132-137.

[20] Jong-Dae Park, "Political Economic Perspectives on the Development of the Middle East and North Africa", *Journal of Public Choice*, Vol. 1, No. 1, March 2022, pp.104-105.

[21] Ibid, p.105.

[22] Matt Andrews, Lant Pritchett, and Michael Woolcock, *Building State Capability: Evidence, Analysis, Action* (Oxford: Oxford University Press, 2017). p.10.

[23] Ibid. p.27.

[24] Jong-Dae Park (2022), p.122.

[25] Jong-Dae Park, *Re-Inventing Africa's Development: Linking Africa to the Korean Model of Development* (Cham: Palgrave Macmillan, 2019). p.117

[26] Jong-Dae Park, "The New Initiatives for Africa's Developnent: Finding the Answers in the Korean Development Model" (Korean), *Review of Institution and Economics*, Vol.15, No.3, August, pp.73-75.

[27] Jong-Dae Park (2022), p.91.

[28] *Cambridge Dictionary*.

[29] *Free Dictionary*.

[30] Anu Partenen, *The Nordic Theory of Everything: In Search of a Better Life* (New York: Harper Collins, 2016). p.234.

[31] Joanna Nylund, *Sisu: The Finnish Art of Courage* (London: Running Press Adult, 2018).

[32] Kanayo Ogujiuba, "Import Substitution Industrialization as Learning Process: Sub-Saharan African Experience as Distortion of the "Good" Business Model," *Business and Management Review,* Vol.1(6) pp. 8-21, August, 2011.

References

Andrews, Matt, Lant Pritchett, and Michael Woolcock (2017), *Building State Capability: Evidence, Analysis, Action*. London: Oxford University Press.

Cilliers, Jakkie (2021), *The Future of Africa: Challenges and Opportunities.* Cham: Palgrave Macmillan.

Dinnen, Sinclar (2007), "The Twin Processes of Nation-Building and State-Building," *State Society and Governance in Melanesia Briefing Note*, 1, Australian National University.

Dune, Kevin C and Pierre Englebert (2019), *Inside African Politics* (2nd ed.) . Boulder: Lynne Rienner Publisher, Inc.

Han, Do Hyun (2013), "Expansion and Recreation of the Virtuous Cycle of Saemaul Undong," *Park Chung Hee Commemoration Association Bulletin*, 1 (34), Jan. 1.

Hillbom, Ellen and Erik Green (2019), *An Economic History of Development in sub-Saharan Africa: Economic Transformation and Political Changes,* London: Palgrave Macmillan.

Henley, David (2015), *Asia-Africa Development Divergence: A Question of Intent,* London: Zed Books.

Henrikson, Alan K (2005), "Niche Diplomacy in the World Public Arena: the Global 'Corners' of Canada and Norway", in Jan Melisse (ed.), *he New Public Diplomacy: Soft Power in International Relations*, New York: Palgrave Macmillan

Inter-agency Team, the Government of the Republic of Korea (2023), "Africa Development Cooperation Strategy", a policy paper for the 44th International Development Cooperation Committee, Republic of Korea, Feb.9.

Jaffe, Eugene D. (2001), *National Image and Competitive Advantage: The Theory and Practice of Country-Of-Origin Effect,* Copenhagen: Copenhagen Business School Press, translated into Korean by Gun Chul Shin and Kyoung Gu Yoo (2005), *National Image and Business Competitiveness*, Seoul: Korea Economic News.

Jwa, Sung-Hee (2017), *A General Theory of Economic Development: Towards a Capitalist Manifesto*, Cheltenham: Edward Elgar Publishing.

____(2017a), *The Rise and Fall of Korea's Economic Development: Lessons for Developing and Developed Economics*, Cham: Palgrave Macmillan.

____(2018), "Understanding Korea's Saemaul Undong: Theory, Evidence, and Implication", *Seoul Journal of Economics*, 31 (2), 195-236.

____(2021), "Korea's Saemaul Undong as a Controlled Economic Development Experiment Merits a Noble Prize," *Review of Institution and Economics*, 15 (2), May.

Keller, Edmond J. (2014), *Identity, Citizenship, and Political Conflict in Africa*, Bloomington: Indiana University Press.

Lee, Keun (2016), *Economic Catch-up and Technical Leapfrogging: The Path to Developmment and Macroeconomic Stability in Korea,* Cheltenhan: Edward Elgar Publishing.

____(2018), The Art of Economic Catch-up: Barriers, Detours and Leapfrogging in Innovation Systems, Cambridge: Cambridge University Press.

Melissen, Jan (2005), "The New Public Diplomacy: Between Theory and Practice," in Jan Melisse (ed.), *The New Public Diplomacy: Soft Power in International Relations*, New York: Palgrave Macmillan

Nye, Joseph S. (1990), *Bound to Lead: The Changing Nature of American Power,* Oshkosh: Basic Books.

____Joseph S. (2004), *Soft Power: The Means to Success in World Politics*, New York: Public Affairs.

Nylund, Joanna, *Sisu: The Finnish Art of Courage* (London: Running Press Adult, 2018).

Park, Jong-Dae (2009) *Korea's Soft Power Foreign Policy towards Developing Countries* (Ph.D dissertation), Seoul: Kyungnam University (Korean).

_____(2019), *Re-Inventing Africa's Development: Linking Africa to the Korean Model of Development*, Cham: Palgrave Macmillan.

_____(2021a) *Having versus Doing: the Picture of the Fourth Industrial Revolution Era*. (a draft manuscript).

_____(2021b) "A New Initiative for Africa's Development: Finding the Answers in the Korean Development Model," *Review of Institution and Economics*. 15 (3) August. (Korean)

_____(2022) "Political Economic Perspective on the Development of the Middle East and North Africa," *Journal of Public Choice*. 1 (1) March.

_____(2023) "Developmental Perpsectives on the Root Causes of the Middle East's Challenges: The Question of Institutional and Social Adaptability," *Journal of Manageemnt Policy and Practice.* 24 (1).

Partenen, Anu (2016), *The Nordic Theory of Everything: In Search of a Better Life*, New York: HarperCollins Publishers.

Studwell, Joe (2014), *How Asia Works: Success and Failure in the World's Most Dynamic Region,* London: Profile Books.

Takagi, Yusuke, Veerayooth Kanchoochat, Tetsushi Sonobe (2019), "The Nexus of Developmental Policy and State Building," in Yusuke Takagi, Veerayooth Kanchoochat, and Tetsushi Sonobe (eds), *Developmental State Building: The Politics of Emerging Economies,* Cham: Springer Open.

The Necessity of Frame Reconstruction in Korean Economic Analysis: Distorted Concepts and Alternatives in the Korean Economy

Wonseop Song[1]
[1](former) The Institute for Democracy, Seoul, South Korea

Abstract
Attempting to reconstruct the frame of Korean economic analysis is essentially difficult because it means leaving well-known areas behind and boldly entering unknown areas. So, what is needed first in this process is an approach. In other words, we must be prepared to see the Korean economy from various perspectives, and to look into other perspectives and be prepared to accept the results from them. And, in order to reconstruct the frame of Korean economic analysis, we need to develop several cognitive muscles. Because we always say that we welcome diversity in principle, but in practice we tend to choose what is known as the basis. In other words, people try to grasp economic phenomena in accordance with a pre-determined frame. Nonetheless, it is worth making an effort to identify the frame for the diversity of the Korean economic analysis frame in the long run. In this paper, the author's thoughts were applied to the explanation of the strike and the analysis of the former government's economic policy. By simultaneously proceeding and analysing the actual economic policy through the existing frame and the alternative frame, the direction the Korean economy analysis frame should pursue in the future was presented. In this process, I did not mean that the representative economic policies of the previous administration received unnecessarily much criticism, but I wanted to emphasize the fundamental problems of the Korean economic analysis frame that could not be properly evaluated from the beginning.

KEYWORDS
Korean economy, institutional economics, frame, rationality, progressivism and conservatism, factfulness

JEL CLASSIFICATION
B41, B52, D02, D72, N01, O17, P16, Z00

1. Introduction

In the Korean economy, ideologicalization has still been progressing. Although the study of economics is included in the category of social science, ideologicalization itself is not a problem in that it should be interpreted and applied differently depending on the socio-political situations. The problem lies in the fact that the ideology itself is being distorted or has already been distorted, and that this has become the frame of analysis. A frame enlarges some of its components and shrinks some of them. Therefore, the perspective of looking at the world can be clearly distinguished by the frame.

In the frame of economic conservatism, there are traces of unnecessary regulation and reckless government intervention everywhere in the market, and in the frame of economic progressivism, there are unfair transactions and incomplete institutions in which the government must intervene everywhere in the market. Entrepreneurs see cheap electricity in nuclear power plant development, but environmentalists see the safety of the Earth, which is essential for long-term survival. Should people wear masks in public during the pandemic? In Europe, those who use the frame of medical aspect answer ‘must’, while those who use the frame of importance of freedom argue ‘absolutely not necessarily’. Even if the same phenomenon is analysed with the same data, the opposite conclusion is drawn when a different frame is applied.

There are no reliable milestones, no simple cognitive processes, and no definite timetable on the path to frame reconstruction. New frames may be made suddenly, but they may not be made well even if they are tried steadily over the years. Of course, the new frame does not guarantee success. A new frame may reach the stage where it is fundamental to understanding a phenomenon, but it may prove inappropriate. As can be seen in the case presented in this paper, reconstructing the frame of the controversial problem can lead to a new perspective. Therefore, it is possible to create new alternatives that would not have been imagined without reconstructing the frame. Whether it is imported from an existing list, repurposing frames imported from elsewhere, or recreating entirely new frames, successful frame reconstruction must share commonalities.

Economics is a field in which the value of frames is very difficult to ascertain because generally frames are not explicit and researchers cannot go through the process of establishing hypotheses and proving them through experiments to arrive at conclusions. In addition, it is even more difficult to know which frame to apply today, when the Korean economy is facing vast challenges. However, it is necessary to understand the influence of frames in all areas of the economy, and a different approach is needed to solve the underlying problem. When the

Korean economy is in a very difficult dilemma, no matter what level the dilemma is at, such as individuals, communities, countries, and civilizations, the core ability to respond to it depends on the unique ability of humans to form frames within us. The failure of economic policies so far is not because they used ‘microscopically ineffective methods’, but because they made ‘macroscopic ways of not thinking about connections’ based on analysis and interpretation based on ‘the perspective of the past’. It is hoped that this article, based on a new perspective and analysis, will serve as a guide in seeking the correct direction of policy in the process of making another leap forward for the Korean economy. The Korean economy needs to get better in the future. One such method will be presented in this paper.

2. Criteria for Korean Economic Analysis: ‘Frame’ and ‘Rationality’

When explaining the actual Korean economy by applying it to economic theory, we have no choice but to analyse it with a certain frame. In other words, everyone interprets and applies learning with a certain frame, but if there is a mistake in this frame, an error will inevitably occur. If you take a picture of the Korean economy with the wrong camera lens, you may encounter a different shape from the actual Korean economy.

Until now, there is an aspect in which the Korean economy has been analysed in a frame that is too lopsided. And now, the Korean economy has entered a point that cannot be explained only with the classical economic framework. In other words, Korea's capitalist economic society has been too focused on free competition-oriented values, reaching its limit in predicting complex, diverse, and unpredictable changes, and the general economic framework has become less predictive or explanatory in the Korean economy. In this situation, whether a new perspective or belief can be accepted and fused according to the situation is very important in understanding the essence of the problem, and furthermore, it can be the basis for establishing solutions and policies accordingly.

2.1. Errors committed by falling into the ‘frame’ in the criteria for analysing the Korean economy

The frame enables valuation. In theory, a frame could be a tool for evaluating options and detailing the difference between good and bad choices. Of course, frames cannot replace value, but if you limit your perspective to some extent according to your purpose, you can see value that can be evaluated. Some frames satisfy the criterion for rational selection, while others do not. In general, frames are a tool that can be used when judging multiple options. It is through framing that we can find a clear way to link our goals and values into action. Thanks to the frame, you can move towards your goal and form a wider world view. Looking at the world through a well-focused lens can gradually transform individual reasoning into something more rational. After all, the role of frames goes beyond making better decisions, helping to assign values in the process of making choices, influencing worldviews and further shaping the real world. Therefore, it is clear that many things can vary depending on the frame we choose in certain situations.

Most of the media covering the Korean economy seems to have a premise that strikes are bad and a frame that the economically progressive government views strikes positively. Therefore, strikes tend to be transmitted to the general public with their true intentions contaminated by the ‘negative’ frame before discussions on legal grounds and legitimacy. If you think about it in reverse, you can judge the same economic phenomenon in the opposite way if you fall into the frame. In this article, taking the strike of KB Kookmin Bank in January 2019 as an example, it is emphasized that serious errors that deviate from the essence can be made if economic phenomena are framed and judged. Also, it will indirectly show that the frame of progressivism or conservatism in economics can hinder accurate grasp of reality.

The mainstream media's reaction to KB Kookmin Bank's strike was consistently negative. Many articles produced very negative articles about the union's legal strike, but their contents could summarize the atmosphere into “a strike by a high-paying aristocratic union,” “a money problem in the end,” or “a selfish strike to take only their own interests by taking the people hostage.” As an economist, I do not want to argue in this paper that strikes cannot be criticized because they are workers' rights as one of the three constitutional rights (right to organize, right to collective bargaining, right to collective action) guaranteed by the Constitution for the improvement of workers' rights and working conditions. Instead, I would like to reveal the thoughts of institutional economists that the phenomena that occurred in the Korean economy at the time fell into a frame and committed errors of “logic” and “statistics,” which distorted the ‘rational expectation’ method generally claimed in economics and led to ‘irrational expectations.’

In the end, in relation to the strike at KB Kookmin Bank, they stopped paying attention to ‘why they strike’ and fell into a certain frame and fell into the error of distorting the phenomenon. Although the strike itself could be criticized with rational grounds and logic, the way the Korean economy treated strikes was far from this. Therefore, here, we will take the strike at KB Kookmin Bank as an example and look at errors that are easy to fall into a certain frame.

2.1.1. The fallacy of the frame that high-wage unions should not strike: Why do high-wage unions strike?

Most of the data on the strike at KB Kookmin Bank was conducted within the frame of accusation that the strike by the high-paying union was wrong. And almost all of these contents pick up titles like ‘average’ annual salary, and the article starts with such a phrase. Statistically, many conditions are attached for the ‘average’ to have a significant value. In other words, although this is an extreme example, if the average annual salary of 19 employees earning 20 million won and one executive earning 2 billion won is calculated, it is 119 million won. In other words, the statistic of “average” is not appropriate to call 19 employees high-salaried. This is a bigger problem because people who have even a little experience with economics or statistics should know it, especially since most elite reporters working for media companies think that they know all these facts and write articles.

Of course, it is true that the annual salary in the banking sector is higher than in manufacturing or other fields. However, while high salaries can be criticized amid differences in the wage system by industry or the structure that determines wages, there is no logical basis for criticism for being a high-salaried union member. You can understand what this frame is trying to say by asking the question, “If strikes by high-wage unions fail, then is it okay to strike by low-wage unions?” In other words, a high salary, which cannot be an explainable variable, is just a frame to draw the conclusion that strikes are not allowed, and strikes and annual salaries cannot have any correlation.

In fact, in 1994, MLB (US Major League Baseball) had an average annual salary of tens and hundreds of billions of won, and the season was suspended on August 11 due to a strike by players, and the World Series could not be held. Due to the strike of NBA (American professional basketball) players worth tens of billions of won, the season, which normally started in mid-October, began only on December 25, and the NBA season was shortened. You can criticize, but not blame, the high-wage earners using the means of strikes to meet their demands. Rather than blaming the strikes of high-wage workers, isn't it the right question we need to ask for the sustainable development of the Korean economy to pay attention to why they strike despite their high salaries?

2.1.2. Error in the frame that various damages are expected when a strike occurs: What about the people when they strike?

The frame of accusation that the strike of the KB Kookmin Bank union, which takes the public as “hostages,” was wrong, was eventually supported by data on various damages or inconveniences expected from the strike. However, the argument that a bank strike should not cause any inconvenience to the public implies an extreme argument that a strike must not be held under any circumstances. In other words, it is understandable to criticize the collective act of strike itself, but it is too much to blame a certain degree of inconvenience caused by strikes.

The London Underground Union carry out 24-hour strikes over several days almost every year, 24 hours from midnight on Sunday, that is, the Underground, which is the most used means of transportation even in normal times, is used to strike in time for Monday rush hour. Of course, this causes great confusion to the citizens of London, because the roads in London are narrow and complicated, so even if there are taxis or buses, it is impossible to get to work on time unless you use the Underground at rush hour. Not all Londoners and British people support these strikes, and many criticisms and blames are also made. However, strikes are still repeated almost every year. As such, strikes are essentially a legitimate means to let the people know that “despite the fact that we are so sorry for causing such inconvenience, these injustices must be corrected!” Therefore, if a strike is defined as a basic right, it is excessive to blame the fact that it causes some inconvenience rather than criticize it.

In addition, KB Kookmin Bank’s strike will reduce bank reliability and bank returns, which will eventually spread to the public, which is a very familiar argument, such as the logic that excessive labour strikes by unions will undermine the country’s credibility, which will adversely affect economic growth. However, these data are actually very weakly grounded. Based on GDP in October 2018, South Korea's economic ranking was 11th globally, followed by the UK 5th, France 6th, the US 1st and Germany 4th. However, in these countries strikes are consistently much higher than those in Korea. Statistics prove how absurd it is to claim that strikes are the biggest impediment to economic growth.

Still, comparison of ‘strikes and economic growth’ between countries can be done through common statistics such as GDP and the number of strike days per business per year, but there are no official statistics to determine how much bank strikes have affected banks' profits and the public. Nevertheless, the frame that a bank strike will produce a lot of damage is accepted without much resistance. This is because these frames are created and spread amid some statistical errors, making it difficult for the public to see through the facts.

1) Survivorship bias

It is said that in order to reduce the shooting down of American fighter jets during World War II, they analysed the damage of fighters returning from the battlefield and came up with a plan to reinforce their vulnerable areas. As a result of the analysis, most of the airplane's damages was concentrated on the wing and tail parts, and of course, additional equipment was to be installed in the area, but the researcher in charge of the analysis immediately made a sudden claim that the cockpit and engine parts should be intensively supplemented. According to his analysis, each part of the plane had an equal chance of being damaged by enemy bullets, but the absence of bullet marks in the cockpit and engine sections was evidence that if those parts were damaged by the enemy, they were fatally hit and never returned. If it weren't for this great researcher, this event, which would have been a case of adding a thick deck to a useless place with biased data analysis, is called a ‘survivorship bias.’

There are various interpretations of this, but in the end, it means that if the results are analysed only with the phenomena that are happening or visible, the conclusions may be ‘biased’ or ‘wrong’. It is that the fact that a bank strike has taken place alone can be identified as the direct cause of the loss that the bank has to endure, which can lead to an erroneous conclusion. Conversely, it is possible to identify strikes as the cause of such profits, and if the strike did not occur, it is possible that the bank would have suffered greater damage than the financial damage suffered by the strike. In other words, such biased thinking should be avoided because it narrows the scope of critical thinking and the risk of making a lot of wrong decisions is very high. However, the current frame is made in this ‘bias’, so it tends to be easily accepted by one side's logic that individual citizens will suffer great losses if they go on strike.

2) Who presented it? You need to dig up the source[1]

When facing data on issues with clear pros and cons, such as KB Kookmin Bank's strike, the first thing to be careful about is to find distorted data. For example, in the case of newspapers, it is necessary to take a close look at whether the purpose is to produce a desirable article or other purpose, that is, whether it is favourable to the union or the manager who is engaged in a tug-of-war on the negotiation issue.

Intentional distortion must be detected. You have to look for things that are directly lying, or deliberately vague, that drive you in their favour. This is because they may have selected only favourable data and ignored unfavourable data. In addition, it is necessary to find out if inappropriate measurement methods have been used. As already mentioned, even though they have to use a median value, you should be careful when they vaguely move on to the word average while using the arithmetic mean value.

In order to find out who made the material, it is necessary to examine the material at least once more. This is because the 'who' may be hidden under the names of famous people called 'the name of authority'. Any job that seems to create a professional atmosphere belongs to the name of authority, and economic research institutes also belong to the name of authority. Likewise, mainstream newspapers and economic media companies also fall under the name of authority. Therefore, when an authoritative name is cited, it is necessary to make sure that the authoritative person or newspaper is not only related to the story, but also supports the fact. Only then a reasonable choice can be made by distinguishing the frames created by one side and judging illogical grounds.

2.1.3. The fallacy of the frame that strikes are ultimately a matter of money: Group selfishness that only wants monetary compensation?

The demand of the KB Kookmin Bank's labour union, which was the most popular issue in the media at the time, was '300% performance salary', but if the union's most desired was like this, it would not have gone on strike. This is because, while the employers have already announced to the media that they agree to pay 300% of the performance bonus, they implanted a strategy

[1] 'Who published it? You need to dig up the source' are applied by Darrell Huff (2004), 『How to Lie with Statistics』, pp. 167 – 171.

of negotiating that several other key points such as ▲ abolishment of pay band for new employees ▲ conversion of fixed-term workers to regular workers ▲ recognition of working experience as contract workers ▲ extension of the entry point for the wage peak system will be discussed in the future. In the end, it can be said that the employers' side and the mainstream media have implemented a strategy to create a frame as if the 'union' focuses only on 'money issues.'

1) The error of confirmation bias

In general, confirmation bias refers to the tendency to confirm an original idea or belief. In statistical reasoning, it is defined as a kind of cognitive bias biased toward confirming hypotheses. In psychology, it refers to cases in which decision makers give more weight to, are more aware of, and exhibit more active seeking behaviour for evidence that confirms their claims. In logic, confirmation bias refers to selectively presenting only evidence or data to support one's claim, so it is also called 'the fallacy of incomplete evidence' or 'cherry picking'. This is in line with the term 'cherry picker' referring to consumers who only pursue their own interests in the marketing field, referring to both those who develop their argument and consumers eating only sweet cherries among sour grapes and cherries on their plates or picking expensive cherries on cakes.[2]

Most of the major media titles related to KB Kookmin Bank's strike on Jan. 8, 2019 were focused on 'annual salary' and '300% performance pay,' creating a frame that seemed to emphasize only 'money issues.' This is the result of the 'confirmation bias' of Korea's main media, which eventually distorts the union's 'reasonable demands' as wrong. In other words, if the KB Kookmin Bank union was really only interested in 'money issues', there would be no reason to go on strike even though they knew public opinion could not be good. The 'confirmation bias' of the main media, which sought and spread evidence that the reason for the strike was 'money problem' rather than just trying to find evidence or data that the reason for the strike was not 'money issue,' eventually led the public to think biasedly.

[2] [Naver Encyclopedia of Knowledge] Confirmation bias - Why did intellectual commentators become pawns of the composition of taking sides? (Emotional Dictatorship, 2014. 1. 9., History of People and Ideas)

2) You have to look for hidden data to see if there is no missing data[3]

On January 10, 2019, the Korea Economic Daily reported in an editorial titled, *"Guaranteed an annual salary of 112 million won for assistant manager, Kookmin Bank union's demand is excessive"*, that "The biggest issue of the strike is the so-called payband system, which began to be applied from employees in 2014, which limits wage increases for employees who have not been promoted due to low performance. The union demands that it should be abolished so that even if the promotion is not possible due to low performance, the salary should continue to rise. The annual salary of an assistant manager-level employee at Kookmin Bank, who is not subject to pay band, reaches a maximum of 112 million won. Even if we can't work, we want everyone to be guaranteed this much." And the general public, who does not know or is not very interested in what is omitted other than 112 million won as mentioned in the editorial, has come to an 'irrational decision' that KB Kookmin Bank's labor union makes unreasonable demands, that is, everything is a 'money issue.'

Even if you knew the statistics (112 million won), you had to find out what was omitted besides those statistics. The editorial is missing the criteria from which these statistics were derived, which in itself distorted the statistics. In other words, this figure, which is expected to be derived from the criterion of 'if an employee of KB Kookmin Bank cannot be promoted from an assistant manager until retirement,' can be said to have been inappropriate for the sampling method. Conclusions drawn from such an extreme sample are, in fact, very hard to trust. There are some reasons for the fact that the Korean Financial Industry Union, including KB Kookmin Bank, prefers a wage system reform based on a 'level salary system' rather than a 'job-based wage' or 'performance-based salary system'. And in this extension line, you can criticize the KB Kookmin Bank union that opposes the 'pay band system'. However, their request should not have been captured by the figure of '112 million won' and regarded as 'collective selfishness that only wants financial compensation'.

[3] The content of this paragraph is applied by Darrell Huff (2004), 『How to Lie with Statistics』, pp. 173 – 177.

2.1.4. The necessity of frame reconstruction in Korean economic analysis

The Korean economy was understood based on causal relationships. However, the frame applied to such a causal relationship did not always fit well. In other words, the frame affects the way of understanding the Korean economy through causal relationships, but the Korean economy in the virtual world is considered through conditional thinking, and the frame becomes feasible through constraints. But what if that frame doesn't work properly? Therefore, it is sometimes necessary to reconstruct the frame. Frame reconstruction is special because we usually try to stay within the existing frame. Reconstructing the frame helps us understand the reality because it allows us to solve the problem at hand by exploiting constraints within the causal frame while making valuable conditional imaginations.

In the recent economic situation in Korea, where allopathic and popular therapies are being abused, sometimes it is difficult to notice that some political colour is overshadowed by economic arguments. It is a case where it is not self-evident that the questionable logic that is blatantly favourable to a particular group is based on statistics. At the time, KB Kookmin Bank's strike was excessively criticized for its moral judgment that ‘a strike by high-paid workers is not right’, an unrealized assumption that ‘strike would cause many damages’, and a biased choice that ‘a strike is ultimately a matter of money’. But more importantly, we should always ask the age-old question as we face these debates: “Cui bono (who benefits)?” said Marcus Tullius Cicero, a Roman politician and famous orator. The ‘Pareto criterion’, which states that no member of society should be harmed or disadvantaged by society, by defining only social improvement in the form of benefiting someone while not harming any member of society as ‘correct’ change, does not actually seem advantageous to anyone. Logically, however, this criterion favours those with vested interests because it doesn't allow for changes that hurt even one person.

For the past 30 years, the Korean economy has been looking for questions and answers to problems within the existing frame. And it can be said that these external circumstances and errors in the frame described so far expanded and reproduced the criticism of the KB Kookmin Bank union strike. Materials related to economic, political, and social issues are delivered to us through news, newspapers, and Internet articles every moment. Recently, with the development of the media, more and more such materials are pouring out, but we must not accept these materials without any filtering. In particular, we must not be deceived by the ‘frame error’ in that ‘misunderstood fact’ can cause a bigger problem than ‘ignorance’ for matters where there is sharp support and opposition, such as the strike of KB Kookmin Bank at the time.

It is very difficult to reconstruct the existing frame or to think outside of such a structure. However, acknowledging that it is difficult to change the existing frame should not give up the debate to create a system that is more stable, more equal, and more sustainable than the economic system that has been popular around the world for the past 30 years or so. 200 years ago, many Americans thought it was unrealistic to end slavery, and 100 years ago, the British government put women who demanded the right to vote in prison. In the recent Korean economy, it is necessary to listen to and agree with others' opinions, and to have an altruistic perspective that does not believe that my views are absolutely correct.

2.2. The ambiguity of ‘rationality’, a basic component of the economic analysis frame

There are more than 10 views and perspectives in economics. Among them, there is ‘neo-liberal economics’, which has been classified as mainstream until recently, ‘institutional economics’ that emphasizes institutions, and ‘behavioural economics’, which has recently been famous for the Nobel Prize. As such, there are various frames for viewing and interpreting economic phenomena. And there is the most basic element constituting this frame, which is the concept of rationality for economic subjects. Here, I would like to emphasize that frame reconstruction is necessary in that the most basic element of frame composition for analysing the economy is rationality, which itself may not be right. Frame restructuion happens fairly infrequently, so when it succeeds, it deserves praise. Although difficult, of course, frame reconstruction is not impossible.

Just as working within a frame is deliberate, frame reconstruction is a deliberate process. In particular, compared to inference made within a given frame, frame reconstruction is more like a kind of insight than a methodological process. A frame does not consist of one element, but there is an essential element to successfully reconstruct a frame. In economics, I think it is a redefinition of the concept of rationality. The term ‘rational’, which has been emphasized in economics so far, includes the same meaning as the terms ‘normal’ or ‘general’. In other words, the concept of rationality, which is used in a very metaphysical sense in politics and philosophy, is used in a very realistic sense in economics.

Although there is no clear regulation of rationality in economics, the 'Rational Expectations Hypothesis' and the 'Axiom of Preference' can be used to examine it indirectly.

2.2.1. The ambiguity of rationality in the macroeconomic concept: the strictness of the rational expectation hypothesis

One of the expectancy theories in economics is the hypothesis that economic agents predict the future using all currently available information. It first appeared in a 1961 paper "Rational Expectations and the Theory of Price Movements" published by Muth, John F., in the famous economic journal Econometrica, and it was Robert Lucas who applied this hypothesis to macroeconomics. If the contents claimed in the rational expectation hypothesis are substituted for the price level and expressed briefly without a formula, it is as follows. That is, by using the information available at present (usually expressed as period t), economic agents predict the price level in the future (usually period t+1). According to this hypothesis, even if all available information is used in this period, if the information is incomplete, prediction errors may occur, but systematic errors can be reduced.

This hypothesis can be applied to the stock market or macroeconomic policy issues, in which stock prices already reflect all the information that currently exists in the market, only those who have completely new information can earn excess profits. In addition, if any macro policy that economic agents can predict based on current information cannot affect the real sector. Robert Lucas was awarded the Nobel Prize in Economics in 1995 for his development of the rational expectation hypothesis and its application to macroeconomics.

The reason why this theory was explained in detail here was to indirectly express how strict the standard of rationality assumed in economics is. In other words, the rational expectation hypothesis that homo economicus will make the most rational choice with all available information when faced with a choice is easily accepted in economics, but not in real life.

2.2.2. The ambiguity of rationality in a microeconomic concept: axiom[4] of general preference

[4] The most basic assumption in any theory is called an axiom.

If the meaning of rationality in macroeconomics could be indirectly extracted from the rational expectation hypothesis, the meaning of rationality in microeconomics can be inferred from the characteristics of general or normal preferences, that is, the three axioms that the preference system should have. Preference relationship means that when two product bundles A and B are presented and asked which one is preferred between the two, the consumer holds in his/her mind an expression that one is better or indifferent. Although it is a very abstract concept, a continuous utility function is derived based on the axioms of this concept, which develops into a demand curve that we encounter a lot in our daily lives, so the axiom of general preference, that is, the assumption that individuals are 'rational,' is very basic in economics.

In other words, the rationality of individuals in economics can be expressed as satisfying the axioms represented by 'completeness,' 'transitivity,' 'continuity,' 'non-satiation,' and 'independence.'[5] Here, instead of explaining in detail what they are and omitting the method of mathematically proving them, I would like to present the strictness of the rational assumption by easily explaining the transitivity among these axioms. The transitivity axiom states that consumers' preferences are consistent. To put it simply, consumers who answered that they like apples out of apples and bananas, and prefer bananas out of bananas and pears, naturally answer that they prefer apples out of apples and pears. Consumers who do not respond in this way have inconsistent preferences, and those with such preferences are excluded from the discussion because they believe that they cannot make a 'rational' choice in economics.

From the start, it is too easy to accept the too strict standard of being rational or general in economics. Recently, behavioural economics is actually proving the assumption of individual rationality, and the results are often quite shocking. In the above example, choosing pears between apples and pears, calling an individual who made such a choice unreasonable or uncommon would apply too strict criteria, and therefore would be too irrational to apply these criteria in real life.

2.2.3. Meaning that humans are rational in the overall economy

As described above, the rationality defined in economic theory applies such strict standards

[5] In economics, the axiom of preference is a basic assumption for expressing preference as a 'utility function', which plays a very important role in deriving the demand function.

that it indirectly asserts that everyone has and sometimes should have a ‘cool head.’ However, it is difficult to apply to reality that when all individuals are at a crossroads of choice, they act by predicting on the future using all the information they can, and always act on those preferences with the order of preferences in their heads. In other words, considering all of these, it can be seen that the absolute criterion that human being is rational in economics was difficult to apply to reality from the beginning. But the assumption that human beings are rational is too easily accepted in economics, and this eventually leads to the futility or inefficiency of government intervention, a blind preference for free market economies or the invisible hand, and even if all regulations are removed, the market can eventually flow into equilibrium, which has eventually evolved into a very extreme neoliberal economics.

The rationality defined in economics is only described by very pleasant rhetoric, but it is difficult to exist in reality. In reality, there is a rationality in which reason and emotion coexist, and a rationality that emphasizes only a cool head cannot and should not exist. So, rather than the ambiguous and relative standard of rationality, it has become important to judge a phenomenon according to the standard of how faithfully a phenomenon can be seen. A cool-head mind cannot and should not properly explain Korea's economic phenomena any longer. However, in Korea, we are still looking at and evaluating economic phenomena in the frame of ‘rationality’ based on these ‘cold-head’ standards. Analysing the Korean economy with only one frame could lead to a judgment that is far from reality.

3. Concepts and Alternatives that are actually being distorted in the Korean Economy: ‘Progressivism and Conservatism’ and ‘Factfulness’

In addition to the theoretical discussion of the frame, which is the criterion for analysing the Korean economy, and rationality, which is the basic element that composes it, this paper will look at concepts and alternatives that are being distorted in the Korean economy due to the application of the wrong frame. The idea of pluralism in the original frame is evident in the realm of economics. The essence of a market economy lies in the fact that all market participants interact, making judgments in order to adjust their behaviour in the most appropriate way, since everyone in the market has very different frames for making decisions. And in the realm of politics, pluralism is the opposite of conformity, and pluralism is accepting differences as they are, rather than trying to melt differences into something single and uniform.

In the realm of philosophy, pluralism allows freedom for framing.

The frame itself should not be the criterion for judging right and wrong, and all frames should be able to coexist. However, there is distortion in the most basic concept that is widely used in the Korean economy due to frame application errors, and distortion of this concept can be observed in the overall economy and finance.

3.1. Are the concepts of progressivism and conservativism important in the Korean economy and finance?

It was after the 2008 global financial crisis that the debate over the concept of progressivism and conservativism became more intense in the Korean economy. In other words, as the limitations of the 'New Classical Economic Theory' were revealed and discussions to overcome those limitations became more active in the economic community around the world, discussions on progressivism and conservativism spread like fashion in Korea as well. In fact, economics is included in the category of social science, but it is necessary to have humanities knowledge to understand it properly, and in some cases, it is difficult to turn over a book without complex mathematics, statistics, or quantitative knowledge, but it is also a very interesting study that can be explained without any symbols or formulas. In other words, even though the debate on these concepts or perspectives in economics is such a natural phenomenon, such discussions only became active when a global crisis occurred due to the special situation that Korea had.

In essence, the answers demanded by the economic methodology often require interpretation or analysis rather than numbers or graphs, as in mathematics or science. However, in particular, the Korean economic community tended to avoid answers containing concepts, ideologies, and perspectives, and preferred very 'neutral' and 'reasonable' figures. In other words, until now, only one direction of study and perspective was required. Economics seems to be a very revolutionary idea in that its logic begins with the axiom of human 'rationality', but rationality is also a very complex concept that requires philosophical discussion. Those who deal with economics or finance should not fall into the trap of 'rationality'. From this point of view, it is meaningless to discuss whether progressivism or conservativism is more reasonable. In particular, this is the case in Korea, so it is necessary to be clear about the concept.

In economics, basic theories about economic growth or the financial industry may lead to completely opposite conclusions or arguments depending on what frame they are interpreted. With the same statistics and quantitative figures, the success of the policy can be judged in reverse, and the decision on whether or not the policy project is feasible can also be concluded differently depending on the perspective or point of view. In other words, there is always a possibility that the countermeasures or policies will be different depending on which perspective the progressive and conservative people understand the phenomenon. However, the political situation in Korea over the past decade and the process of Korea's economic growth that began in the 1960s, made it very difficult to establish the correct concept of progressivism and conservativism. Of course, the concepts of progressivism and conservativism cannot bring about economic growth or innovation, but re-establishment of the two concepts is a task that needs to be considered for the direction of the Korean economy in the future.

I think the political situation in Korea, which has been chaotic over the past decade, has made progressivism come with the right thing, freedom, or that feeling, and conservativism with the wrong thing, restraint, or regulation, or that kind of feeling. Originally, although the concept of progressivism and conservativism is not a moral or political criterion for judging right and wrong, the frame error that can be found in Korea's special political situation has distorted this concept. In addition, progressivism and conservativism seem to be accepted differently from the general concepts of other countries in the Korean economy, and when combined with the recent political situation and the process of Korea's economic growth, it feels more heterogeneous.

In fact, from an economic point of view, policies and theories called progressive are linked to Keynesian studies and ideas, and policies and theories called conservative are related to Adam Smith's studies and ideas. In other words, Keynes, who even named human's speculative investment demand 'animal sprit,' and Adam Smith, who emphasized invisible hands in the market, eventually had a different idea of 'economic human beings.' If Keynes supported government or state regulation and supervision and regarded the state intervention as inevitable because he considered human's unreasonable behavior perfectly normal, Adam Smith argued that all markets would converge to a equilibrium because humans (although attached a number of conditions) essentially put their interests first. If this concept is expanded to the Korean economy and financial sector, its meaning enables another interpretation.

3.2. From an economic point of view, the nature of progressivism and conservativism and ‘Distortion’ in Korea

The characteristics that can explain these two concepts in economics are briefly as follows. ‘Progressivism’ can first be described as an abbreviation or term for a rather leftist way of looking at the world and the economy. Second, progressivism can also be explained according to the goal of improving the situation of the people through government-led economic growth plans. So-called progressive economists have favorable views on policies that reduce interclass movement or income inequality, so they insist on market control through ‘regulation’. And there is a belief that there cannot be a fair market at the root of it, so income inequality cannot be improved by relying on a market mechanism alone. That is, thirdly, the notion of progressivism can be explained by the idea that free markets are inherently ‘unfair’. Finally, economic policies that are considered progressive include progressive taxation, mandatory redistribution of income, comprehensive packages of public services (public education, public health, etc.), social security, minimum wages, antitrust laws, protection of workers' rights and the protection of trade unions. There is legislation, such as rights, and policies oriented toward a welfare state.

In economics, on the other hand, ‘conservatism’ can be described as an abbreviation or term for a rather right-wing way of looking at the world and the economy in the first place. Second, conservatism can also be explained by the ideal belief that the economy can function individually and spontaneously (without government or state regulation). In other words, conservative economists tend to prioritize individual decisions over institutional or organizational decisions because most economic decisions eventually converge on individual decisions and believe in ‘individual rationality’. Thirdly, the concept of conservatism can also be explained by the strong support for a market economy (free market) and private property, which is based on the belief that free markets will essentially converge towards ‘equilibrium’. Thus, conservative economists tend to oppose government intervention and protectionism in free markets, but may accept government intervention to eliminate private monopolies. Finally, Conservativism argue that the role of government should be limited to the legitimate provision of public goods.

Although briefly explained, in economics the two concepts are very clearly distinguishable. However, if you look at how these concepts are accepted in Korea through real-life examples, your understanding of these concepts may become confusing. I consider this situation to be a distortion only in Korea due to a frame error. Korean economists, who have a very favorable view of Korea's developmental era, often refer to themselves as 'conservative.' And they claim that the developmental state was able to succeed because it had a very elaborate and sophisticatedly designed economic growth plan. In particular, since they are very friendly to the bureaucratic system, financial structure, and industrial policy of that era, they argue that these systems should be researched and applied well in modern society.

Why do they define themselves as 'conservative' just because they support the growth structure of the Korean developmental state or because they are friendly to developmental policies? The clue can be found in the fact that many people in Korea think of the word 'state owned' as a concept of 'conservativism.' In fact, state-oriented economic policy or industry was a 'progressive' concept from the beginning, but Korea's uniqueness made the concepts of 'conservative' and 'progressive' confusing. In other words, in Korea, 'conservativism', 'advocacy of the developmental era (1960s~1970s)', and 'state-cantered financial and industrial system' are accepted as the same concept, and 'progressivism' is accepted as a simple concept contrary to this. This was because the developmentalist era coincided with the dictatorship era, and the opposing forces were defined as 'progressive' through the democratization process, that is, the Korean concept of 'progressivism' was established to oppose many things that happened during the dictatorship. At some point, because of the distorted concept of progressivism and conservatism in Korea, it was often very difficult to properly set the direction of government policy, and the establishment of these two concepts has become very complicated and difficult in the Korean economy and finance.

3.3. 'Progressivism' and 'Conservativism' in Korean Finance[6]

If we take Korean finance as an example, we can see that the establishment of these two concepts in Korea is very confusing. In fact, judging from the nature of finance and the concepts of progressivism and conservatism in economics, finance was essentially an industry that was active in a progressive view of the market and people. In other words, finance is essentially an

[6] The so-called 'financial mystery' described here is a contextual description of the contents of 『Everybody's Political What's What?』 by G. Bernard Shaw (1944).

industry that has become prevalent by relying on human irrationality, ‘voluntary ignorance’.

Finance is a lucrative and extremely useful business, but there are pitfalls in it, and customers are not willing to be aware of them. Customers simply trust that their money is safe in a sturdy bank vault. Of course, there can be customers who go to the bank once in a while and withdraw the full amount of money in order to make sure the money is safe. The person in charge will then show you the full amount in cash. And the cash sack will have the customer’s name tag attached to it. The customer checks that his or her balance is correct, and deposits it with the bank as before. No customer will try to suspect the bank of cheating. In fact, the bank can simply hand out the same bag of cash to multiple customers who come to check their deposits. All you have to do is slightly adjust the cash according to the amount in the account and change the customer's name tag. In fact, most depositors trust the bank so much that they do not even think about checking whether their money is in good condition, and are convinced that their money will be kept intact in the bank. And banks and financial institutions use the money of customers voluntarily left in the bank to make profits.

Therefore, finance is essentially an industry that requires very much regulation and supervision. Financial institutions’ profits are important values and cannot be ignored in capitalist society because they are principles that make the financial industry work smoothly, but equally or sometimes more importantly, customers and financial consumers and their deposits should be considered more valuable. However, as described above, Korea’s special situation cannot confidently call the government or state’s policy of strongly implementing ‘regulatory supervision’ on the financial market as progressive. In fact, based on the essence of finance that started with human irrationality, ‘regulation or supervision’ is more necessary for financial consumers. These claims are truly progressive.

However, if you look at the financial policies of the Moon Jae-in administration, which called itself a so-called progressive government, you can see that the concepts of progressivism and conservativism are very ambiguous in Korean finance. Aside from mentioning concrete reforms or new industries in this article, how did they try to change the paradigm of finance by focusing on the concepts of ‘progressivism’ and ‘conservatism’? According to the concepts explained above, did the financial authorities' paradigm shift mean a shift from where to where? It is judged that the explanation so far has been sufficient for the fact that progressivism and conservativism cannot be the criteria for judging right and wrong. In other words, even if the direction of finance was set as a progressive or conservative paradigm, it could not be criticized.

In fact, most of the policies related to the financial industry of the last government were conservative based on the criteria described above. Because most of the financial policies that took place at the time: revitalization of the market economy due to deregulation, and the government or financial authorities were extremely reluctant to actively intervene in the market, and market participants took responsibility for incidents or accidents that occurred in the financial market, were judged to be policies that followed the concept of economic conservatism.

However, the core of the problem was that the Korean financial authorities at the time were presenting conservative policies while pursuing progressive or low-income finance. Most of the regulations in the financial market, of course, may exist that do not fit the circumstances of the times, but they are enacted and created for the purpose of protecting financial consumers by targeting financial companies. Therefore, the idea of 'protecting financial consumers' while doing 'deregulation' can be evaluated as the same as 'realizing the welfare state' without 'tax increase'. There should have been a more in-depth discussion about finance with the topic of 'progressivism' and 'conservativism'.

3.4. A new rationality that the new government wants to set as the standard: 'Factfulness'

A single frame cannot suggest an appropriate solution that can be applied to all economic problems in this complex world, and the possibility of reaching a better conclusion increases when analysing and judging economic problems using several frames. In other words, if there are fewer frames available when choosing one, the opposite happens, reducing potential choices and leading to less-than-optimal decisions. This does not mean that you simply need more frames, but that you need to make good choices through analysis through those frames. You may find the answer simply by changing your perspective. However, finding a simple solution requires a conceptual leap out of the frame of trial and error.

In the Korean translation of 'Factfulness', the posthumous work of Swedish physician and health statistician Hans Rosling, factfulness is translated as an appropriate expression. In this book, Hans Rosling explains that there are ten reasons why we do not accept statistics as they are: the gap instinct, human pessimism, fear, impatience, tendency to generalize, and tendency to blame problems on others. And if you overcome it, you can realize that the world is actually steadily improving. He presents the reason why one must remove irrational instincts and look at even when looking at statistics, which can be said to be the most objective in the book, through several cases and experiences, so factfulness is worth referring to when discussing the new standard of rationality.

If you look at this book based on the ‘ambiguity of rationality’ described above, it can be interpreted that ‘rationality’, which has been the basic component of the frame in economics so far, has been flawed from the beginning. Even if it is accurate statistics, a phenomenon that is explained only with a cool head may not faithfully explain the true appearance of the world. Here, based on this factfulness, I will re-examine the economic policy of the previous government in Korea, and at the same time, I will suggest the implications and importance of factfulness.

3.4.1. The factfulness of the income-led growth policy

The most central keyword in explaining Korea's economic policy under the previous administration was 'income-led growth'. It was a growth discourse that was suggested as one of the alternatives under the exaggerated assumption that economic policies that relied on the previous government's trickle-down effect were the root of almost all problems Korea was experiencing at the time, but it was bound to face strong criticism from the beginning. However, in order to more accurately criticize the policy of income-led growth, it should have been approached with a new frame based on a new rationality and factfulness that suppressed ‘The Negativity Instinct’, ‘The Destiny Instinct’, ‘The Single Perspective Instinct’, and ‘The Blame Instinct’ and ‘The Urgency Instinct’ among the 10 instincts mentioned by Hans Rosling. In that case, economically valid criticism would not have been treated as a mere progressive or conservative camp logic.

It is well known that the Moon Jae-in administration wanted to change the paradigm for economic growth and that the method was ‘income-led’. And most economists' criticism of this method could be summarized into two main points. The first was that some economists, including Polish economist Kaleski, had previously claimed it as a theoretical model, but it has not been empirically verified, and the second was that this "Keynesian" method would cost future generations a huge amount of money. These opinions were certainly a very valid criticism as an economist, and it is judged that concerns about policy sustainability in particular have been proven by the difficulties that the Korean economy is currently experiencing. However, several instincts listed above had to be overcome by properly criticizing this growth theory from the beginning, in order to preserve the fundamental of the Korean economy and eliminate the domestic cause of the recent Korean economic difficulties.

1) 「The single perspective Instinct」, 「The destiny Instinct」 and 「The urgency Instinct」

At that time, among the opinions of Korean economists on the theory of income-led growth, the most deeply imprinted criticism to the public was that “I have never heard of it while studying economics for a long time”.[7] Contrary to the facts, this has led to the hasty conclusion of income-led growth theory as an economic theory that does not exist in the world, thereby making a reasonable criticism of the growth discourse appear only as camp logic. In other words, this hasty conclusion made people fall into the logical narrow-mindedness that generally conservative economists were unconditionally opposed to government policies which seemed to be progressive. In fact, there are more than 10 views and perspectives in economics, among which there are institutional economists who value institutions, and behavioral economists who have recently become famous for the Nobel Prize, etc., who start out with doubts about individual rationality, and there is also an economist like Kalleski who made a similar claim for ‘income-led growth’.

At a time when the Korean economy was stagnant and a new driving force for growth was required, I think it was necessary to try new attempts on problems that were still difficult to solve. In other words, it was not absurd to claim that a solution to the Korean economic problem could be found only by looking at the problem from a new perspective and considering methods that had not been tried before. If they sympathized even a little with the perception that there could be problems with the way they’ve been doing it, they would have sympathized with the argument to try a new way. However, criticizing this argument as an economic growth theory that had never been heard before was indulging in the ‘the single perspective instinct’ and failing to properly view the phenomenon. The income-led growth theory should have been

[7] Professor Emeritus Cho Jang-ok(Department of Economics, Sogang University) actually said this in an interview with E-Daily (July 16, 2018, refer to E-Daily).

criticized with factfulness overcoming the single perspective instinct.

In fact, there is no expert or economist who does not know that the government's policy to change the way of economic growth is difficult to produce results in a few years. At the time of the launch of the Moon Jae-in administration, the Korean economy was numerically growing by 2-3% annually, but externally, it was surrounded by various negative factors such as the US-China trade dispute, Brexit issues, and Middle East issues. Domestically, polarization was still deepening due to low growth and increasing uncertainty, household debt was increasing, and youth unemployment, low birth rate, and aging were facing a very difficult situation. And those situations weren't just the ones that emerged after the new government took office in 2017. In the end, it can be said that many people were complaining of difficulties as a result of analyzing the same problems they had been experiencing for several years from a similar perspective and solving them with similar policies.

As a result, it was a natural result that the public's trust in the country or government fell to the lowest level. In other words, Korea at the time had little internal trust, and more importantly, any changes in economic policy could have had no effect in this situation. In other words, in order to establish a policy and predict its effect, the behavior of the people in response to the policy of the state is important, but it was difficult for any policy to have an effect in the situation at the time. However, the assertion of some economists that the problem will be solved only through a drastic change in the paradigm shift of economic growth, was able to be sufficiently accurately criticized based on the concept of ‘factfulness’ rather than the concept of right and left.

In fact, there were many points of criticism of income-led growth itself from an economic theoretical perspective, but what had to be pointed out as a more problematic point at the time was that it was trying to solve the problems that the Korean economy and society were experiencing through an extreme method called ‘paradigm shift’. At that time, the group of experts who were called economic or social problem experts had to remember that even a slow change is a change by suppressing ‘the destiny instinct’. Looking back at that time, the current economic situation in Korea proves that the rapid change that the media and experts were talking about was neither possible nor desirable. In addition, in the early days of the administration, which could not guarantee success in fine-grained policy adjustments, the pursuit of changes in the growth system was too hasty. In other words, the experts who claimed that all problems in the Korean economy could be solved with a new paradigm at the time had to admit that it is actually rare to make an urgent decision on ‘paradigm shift’ by suppressing ‘the destiny instinct’ and ‘the urgency instinct.

2)「The negativity instinct」 and「The blame instinct」

I will not evaluate that the economic policy of the previous administration, which tried to restore trust in the country to the current generation by seeking a shift in the economic paradigm and expanding finances, was a completely wrong choice. In addition, we can also respect the decision that the government at the time judged could have caused bigger problems if it failed to make and implement policies due to concerns about the financial burden for future generations. However, efforts should be made to explain the situation based on ‘factfulness’ that removes ‘the negativity instinct’ so that the general public can accurately recognize that the situation at the time was bad but it was improving, and it was improving but it was still not good. If so, the evaluation of the previous administration’s attempt to shift the economic paradigm to income-led growth would have been different.

There was no economist who unconditionally disagreed with or criticized the core policy direction of income-led growth, which aimed to transform the economic growth method into a virtuous cycle that the income of the socioeconomically underprivileged (↑) → consumption (↑) → domestic demand revitalization (↑). In addition, there were no experts who unconditionally objected to the basic contents of the detailed policy for income-led growth, which is a collection of various policies such as raising the minimum wage, reducing essential living expenses such as medical expenses, expanding the social safety net, and investing in human capital. Of course, looking at the side effects of the rapid increase in the minimum wage, the opinions of experts who strongly criticized or criticized income-led growth at the time were valid. This is because the rapid increase in the minimum wage, which was promoted to increase the income of the socially underprivileged, eventually reduced jobs for the vulnerable and reduced the income of the lower income class, temporarily negatively affecting growth.

However, at the time when these results could not be predicted perfectly, the opposition to income-led growth was seen as unconditional criticism or ‘the blame instinct’ rather than rational criticism, and such criticism that was not based on factfulness did not prevent the wrong policy implementation. If there are only bad signs in the Korean economy, the blame instinct, which tried to find almost all causes in the income-led growth theory, should also be removed along with the negativity instinct, and an alternative for a soft landing should be presented, rather than blindly blaming the income-led growth. If the previous government should have abandoned income-led growth, I wonder what alternatives were there to bridge the growing gaps between classes, large and small businesses? Also, I wonder what they were trying to claim is returning to the Lee Myung-bak and Park Geun-hye administrations by reviving reckless deregulation and neoliberalism as an alternative?

In fact, there were many cases where policies that had a fairly good direction in the five-year single-term presidential system were discarded and overturned just because the government changed. Since the analysis based on the blame instinct and the negativity instinct on the policies of the former government did not conform to the 'factfulness', almost all policies were not properly evaluated and errors were not improved. This vicious circle is a very fundamental reason why the transition has not been carried out properly, although everyone knows about the structural problems of the Korean economy.[8]

3.4.2. The factfulness of the minimum wage issue

As mentioned earlier, in order to more accurately criticize the minimum wage issue that took place throughout the last government, the issue had to be approached based on the factfulness of suppressing The Gap Instinct and The Fear Instinct among the 10 instincts mentioned by Hans Rosling. The minimum wage system is implemented to ensure income for workers to enjoy a minimum human life. It is thought that criticism of the system is mostly based on economics, and the logical flow is briefly explained as follows.

In economics, if a minimum price system is set, that is, if the government sets a price higher than the equilibrium price, an oversupply condition in which supply increases, resulting in a decrease in price in the long run. In other words, if the minimum wage system is enacted, the number of people who want to find a job will increase, but companies will reduce employment because the wages paid to workers are burdensome. In other words, an excessively high minimum wage acts as a burden on companies, leading to a decrease in employment and, in

[8] "Reason why the conservative opposition party's criticism of income-led growth is inconvenient" published in the *Kyunghyang Shinmun* on November 18, 2018.

the long run, rather deteriorating the economy.

In fact, many of these side effects have appeared, especially in the small self-employment sector, but in order to criticize that a rapid minimum wage increase may be the root cause of adverse effects throughout the economy, this issue had to be analysed based on the factfulness. In other words, in order to properly grasp the issue of raising the minimum wage and effectively criticize it, the two instincts listed above had to be overcome.

- 「The gap instinct」 and 「The fear instinct」

Regarding the wage increase due to the rapid rise in the minimum wage, criticism structure from economists, management scholars and the press is generally that production costs will rise sharply due to the rise in labour costs in the overall Korean economy, which in turn negatively affects the production activities of companies and reduces employment, so it would ultimately damage would go back to the workers. This claim was a problem because it was overly biased towards the logic of the business world or capital, but a bigger problem is that these criticisms rely on analysis that is not based on proper factfulness, because these fall into the gap instinct and the fear instinct.

From the point of view of economists and business scholars or journalists who receive relatively high wages, a great number of workers' wage can be considered to be the minimum wage. It's like the logic that if you look down from a tall building, everyone looks small. If we check the percentage of total wage earners who will directly benefit from the increase in the actual minimum wage, we will see that these claims are too exaggerated. The wage distribution of most workers lies between the two extremes, not in them. Of course, there is a difference in wages between regular and non-regular workers, and the fact that non-regular workers are relatively more than regular workers is a problem, but I do not think this should be a reason for criticism of the minimum wage increase.

In the end, opinions opposing the minimum wage increase were easily distorted into a 'bad idea' against the 'good idea' of increasing the income of workers corresponding to the minimum wage. In other words, it was accepted as ideological criticism or unconditional opposition because it analysed the problem of raising the minimum wage based on the gap instinct, not factfulness, and criticized government policies based on this analysis.

In addition, as the structure of criticism at the time, if the minimum wage increase is to lead to a sharp increase in labour costs in the overall economy, the wages of all wage workers must also rise by the rate of the minimum wage increase. However, there are few unions or labor organizations that make such unreasonable demands in the actual wage negotiation process between labour and management. As an example, the minimum wage in 2018 was 7,530 won, up 16.4% from the previous year, but if you look at the main points of wage negotiations requested by the Korean Financial Industry Union in the same year, you can see that a 4.7% wage increase was requested. The claim that the labour cost of the overall economy can rise only with an increase in the minimum wage seems very plausible, but there is no actual case that can support this claim in reality, or even if it can be found, there will be many variables that need to be explained in the logical structure. In other words, such criticism at the time was too dependent on logic that was biased toward the fear instinct that were obsessed with things that would not happen and could not grasp the essence of the situation, and there was an aspect in which the criticism itself fell into a situation where it was blamed.

In the end, the reason why the government established the minimum wage system and raised it every year was not only for economic reasons that an increase in the minimum wage could help stimulate domestic demand by increasing consumption and could improve business management, but there was also a social reason to improve the lives of the lowest-income class even a little. Nevertheless, the problem was that not only did most of the arguments from the economists, management scholars and the media at the time depended too much on economic analysis, but even that analysis was biased towards the gap instinct and the fear instinct. Such analysis and assertions that are not based on factfulness have faced criticism that they are trying to attribute the bad symptoms of the economy only to the minimum wage, and criticism of the rapid increase in the minimum wage is not properly evaluated by the general public. In fact, if all bad signs can be attributed to a rise in the minimum wage, conversely, all good signs can also be attributed to a rise in the minimum wage.

4. Conclusion

Essentially, I think that the idea of frame pluralism is inherent in the background of economic theory. For example, the nature of the market economy and the concept of equilibrium include the recognition that market participants interact with each other while judging their own frame to adjust their behaviour in the most appropriate way. Also, the invisible hand that Adam Smith claims is the concept that the market eventually reaches equilibrium even in the process of everyone competing and cooperating with their own frames. Of course, there are many philosophical backgrounds and areas of criticism, but it seems impossible to ignore the basic premise that there are various frames in economics.

Attempting to reconstruct the frame of Korean economic analysis is essentially difficult because it means leaving well-known areas behind and boldly entering unknown areas. So, what is needed first in this process is an approach. In other words, we must be prepared to see the Korean economy from various perspectives, and to look into other perspectives and be prepared to accept the results from them. And, in order to reconstruct the frame of Korean economic analysis, we need to develop several cognitive muscles. Because we always say that we welcome diversity in principle, but in practice we tend to choose what is known as the basis. In other words, people try to grasp economic phenomena in accordance with a pre-determined frame. Nonetheless, it is worth making an effort to identify the frame for the diversity of the Korean economic analysis frame in the long run.

The concept of rationality, the most basic element of the economic analysis frame, should have a cool head that sees what is visible and a warm heart that can grasp the hidden meaning behind it, which seems most similar to the concept of 'factfulness' that Swedish health statisticians claims. Recently, when many media talk about the economic situation in Korea, statistics and data are used very frequently. And the analysis based on this is also explained as if it is very rational and cool-headed, and they often use it as a basis for their argument. However, this cool analysis does not always accurately tell the actual reality or facts.

This is because the media tends to report only the facts that have been filtered through the so-called 'attention' filter, and what passes through that filter is often exceptional but provocative facts. In other words, what frightens us with the 'rational' analysis may not necessarily be the most dangerous thing, but when we look at the Korean economy based on the new rationality described so far, 'factfulness', we can feel more comfortable. If you look at the Korean economy based on factfulness, away from a dramatic perspective that is extremely negative and intimidating, you may feel less stress and despair, which may not be as bad as you think. And 'factfulness' is very important to know what we really need to do to find the right direction for improving the Korean economy.

In this paper, the author's thoughts were applied to the explanation of the strike and the analysis of the former government's economic policy. By simultaneously proceeding and analysing the actual economic policy through the existing frame and the alternative frame, the direction the Korean economy analysis frame should pursue in the future was presented. In this process, I did not mean that the representative economic policies of the previous administration received unnecessarily much criticism, but I wanted to emphasize the fundamental problems of the Korean economic analysis frame that could not be properly evaluated from the beginning.

The regulation of finance, business, and markets differs depending on whether we are dealing with an evolving entity or an entity whose characteristics are constantly being clarified. Therefore, in addition to explanatory methods that actively rely on technical, mathematical, and quantitative methods so far, the current economic analysis frame should be reorganized in a way that actively reflects the view of Robert Heilbroner, that “economics is the science of philosophical analysis about the nature and logic of the economic system to improve the problems of the evolving economic system.” In other words, not only frames based on ‘simple and abstract concepts of economic substructure and political superstructure’, but also frames that include behavioural or institutional economics perspectives that question even the basic axioms of human rationality will have to be paralleled. And only in this way the definition of economics can be properly established and an economic analysis can be helpful to everyone.

It is very difficult to recognize the right timing for frame reconstruction, but if multiple logical errors occur in describing reality, the timing should not be delayed. If there are many situations that are difficult to explain with an existing frame, the frame should be replaced with another frame. In this case, it is meaningless to adjust constraints within the existing frame for new conditional thinking. In fact, the frame reconstruction requires continuous effort and is also very dangerous. However, this provides a different perspective and broadens the choice of several options that might not have been considered if the frame had not been reconstructed. After all, it is impossible to fully understand its potential because we are not yet proficient in this frame reconstruction process, but the reconstruction of the Korean economic analysis frame will provide the possibility to come up with solutions to the various crises facing the Korean economy.

Reference

Andrew W. Lo., 2017, *Adaptive Markets: Financial Evolution at the Speed of Thought*. Princeton University Press.

Ariely, D., 2009, The End of Rational Economics. *Harvard Business Review*, pp. 78-84.

Darrell Huff, 1993, *How to Lie with Statistics*. W. W. Norton & Company

G. Bernard Shaw, 1944, *Everybody's Political What's What?* Constable; Standard, pp. 83-104.

Hans Rosling, 2018, *Factfulness: Ten Reasons We're Wrong About the World--and Why Things Are Better Than You Think*. Flatiron Books.

John F. Muth, 1961, Rational Expectations and the Theory of Price Movements. *Econometrica*, pp. 315-335.

Kenneth Cukier, Viktor Mayer-Schönberger, and Francis de Véricourt, 2021, *Framers: Human Advantage in an Age of Technology and Turmoil*. Dutton.

March, J., & Olsen, J., 1989, *Rediscovering Institutions: The organizational basis of politics*. NY: The Free Press.

Nabli, M. K. and Nugent, J. B., 1989, *The New Institutional Economics and Development: theory and applications to Tunisia*. North-Holland.

Robert E. Lucas, Jr. and Thomas J. Sargent. (eds.), 1981, *Rational Expectations and Econometric Practice*. University of Minnesota Press.

Robert L. Heilbroner and Lester Thurow, 1998, *Economics Explained: Everything You Need to Know About How the Economy Works and Where It's Going*. Simon and Schuster.

Thaler, R., 1985, Mental Accounting and Consumer Choice. *Marketing Science* 27(1).

Thelen, K., & Steinmon, S., 1992, Historical Institutionalism in comparative politics. In *Structuring politics: Historical institutionalism in comparative analysis* (eds S. Steinmo, K. Thelen, & F. Longstreth), Cambridge: Cambridge University Press.

Toye, J., 1991, Is there a New Political Economy of Development. In State of Markets? Neo-liberalism and the Development of Policy Debate. (eds C. Colclough and J. Manor), Oxford: Oxford University Press.

-Note-

-Note-

-Note-

-Note-

-Note-

-Note-