

# Reflexivity in the Transformation of Higher Education: Comparing Japan, South Korea, and Taiwan\*

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The objective of this paper is to compare the transformation of higher educations in Japan, South Korea, and Taiwan. The higher education systems in these societies were established and transformed from homologous Japanese Imperial Universities, and developed toward various higher education systems intermediated by policies under international and domestic contexts. Using second hand data, the results show the common characteristics of these cases from state-led national elitism to market-led massification by means of privatization and commercialization. However, some differences exist in their finances resources, enrolment rates, policies for tuition fees and mostly important, job rewards for those who obtain higher education degrees, comparing to high school ones. The rise of reflexivity further suggests that the right of access to higher education has been changed from institutional limited opportunities, to the actors who decide when, why, and how to accept higher education. The facts imply that the states have to adjust and re-define their roles in higher education, and diverse programs and learning methods will be provided for multiple students in the future.

*Keywords:* reflexivity, comparative higher education, marketization, commercialization

## Introduction

Japan, South Korea, and Taiwan simultaneously face severe crises in higher education, including over-supplied colleges, layoffs of faculty and staff, a decrease of student interest in learning, and degree deflation. Although higher education used to play an important role in economic development (Castells, 1992; Permani, 2009), members of the educated new generation are in trouble, at risk of low salaries, underemployment, and even unemployment after they obtain higher degrees. The controversy about how to respond to these crises involves not only educators, school administrators, and academic professions but also the mass media, students, and their parents. The discussions influence the governments' higher education policies. The overall academic qualifications and working conditions of the professoriate decline because of the reductions of spending in higher education. Additionally, this leads to increased competition for a limited number of academic positions, as well as reducing the academic choices of the young generation and their opportunities for social mobility through attaining higher education.

Japan, South Korea, and Taiwan all face a similar difficulty of oversupply in higher education, which is encountering a decrease in the student population owing to lower fertility rates. While the emerging higher

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education problems look similar, some subtle differences among these countries can be observed. In the past, the modern higher education systems of South Korea and Taiwan were established by the Japanese colonial government, and now all them have shifted from a state-led elitism to commercialized massification (Trow, 1973). The three societies share the phantom that Dore (1976) called “diploma disease”, the excessive reliance on the selection process in formal educational institutions and educational qualifications are used as evidence of ability, training, and merit for entry to particular occupations, careers, or internal labour-markets. However, the governments demonstrate different policies to respond to these challenges under different contexts of political, economic, and social development, and thus create different landscapes of higher education. At present, the air is full of questions and debates on the transformation of higher education systems. Differing views are held among governments, unions, and student groups on labour rights and the right to education. Administrators and faculty in publicly or privately established schools hold different opinions regarding the assignment of education resources. Should resources be allocated to achieve universities with world-class standing or to provide equal opportunity for students from different socio-economic backgrounds? Should tuition be higher or lower? Will tenure track for academic profession be terminated? All these disputes reflect fundamental political ideologies, social values, and economic factors behind higher education policy. The roots of these problems lie in how states, academic professions, and people consider the functions of higher education and see the role that higher education should play in future social development. However, it is a hard work to redefine the mission of higher education and implement policies for the direction of higher education. The higher education systems in the three societies face agonizing dilemmas—publicization or privatization. On the other hand, thanks to open policies for creating new universities, as education consumers, families, and individuals now have more options for deciding whether, when, and how to invest in higher education. This paper aims to identify the differences and challenges of higher education transformation through comparing higher education policies within their embedded social contexts. It may be helpful to understand the dilemma and possible resolutions for higher education.

### **Reflexivity and Transformation of Higher Education**

The term “reflexivity” in the social sciences is complex, as it has been used by different theorists to refer to different phenomena, with regard to both the object and the subject of reflection. In the first sense, it refers to the subjective interpretation of a social actor in various social perceptions of situations, institutions, or interactions. Giddens (1991) defined reflexivity as involving “the routine incorporation of new knowledge or information into environments of action that are thereby reconstituted or reorganised” (p. 243). He used the term “institutional reflexivity” to indicate the regularized use of knowledge about circumstances of social life as a constitutive element in its organization and transformation. According to him, most aspects of social activity are subject to constant revision in the light of new information or knowledge.

A second meaning of this term is from anthropology. As part of ethnographic research, reflexivity is the process by which the researcher reflects on the processes of data collection and interpretation. Reflexivity in ethnographic research involves two things. On the one hand, researchers reflect on the research process in order to assess the effect of their presence and their research techniques on the nature and extent of the data collected, and on the other hand, researchers have to reflect critically upon the theoretical structures drawing out of their ethnographic analysis (Harvey, 2012-2018).

Finally, the term is represented within the context of “reflexive modernity”. According to Beck, Giddens, and Lash (1994), reflexivity is self-confrontation, which results from unintended side-effects and risks brought by industrial society that shake the foundations of industrial society and its core institutions. Like Beck et al. (1990) linked this propensity for reflexivity to historical processes of detraditionalization, individualization, and the undermining of traditional authorities and structures shaped by technology in industrial society.

However, one fact that Beck et al. (1990) ignored the change of functions and roles of higher education systems which confronts a new risk by market force, and therefore leads to new challenges at both institutional and individual levels. At the institutional level, the declining of birth rate and enrollment accompanies with oversupply higher education, and at the individual level, the price of college tuition and its reducing rewards may impede access to higher education for some students who lack sufficient family support.

### **The Legacy of Higher Education**

The modern higher education systems in South Korea and Taiwan were introduced during the Japanese colonial period. In 1886, the Japanese government promulgated the Imperial University Order, which renamed the University of Tokyo as Imperial University and successively established nine Imperial universities in other cities of Japan and its colonies, including Keijō Imperial University (1924, National Seoul University) in Korea and Taihoku Imperial University (1928, National Taiwan University) in Taiwan. Imperial University borrowed the university system from European countries and reformed it as a unique Japanese model of higher education. There were three characteristics. First, the university became a cradle for the state bureaucracy. All faculty members were expected to serve the government; for example, the percentage of civil servants graduated from Tokyo University was once up to four-fifths (Asō, 1973). Second, Imperial University created specific applied and pragmatic-oriented disciplines that were not so emphasized in old European universities, such as medicine, agronomy, and institution of tropical medicine aiming to benefit the colonial government. Third, gender segregation was significant in Japanese universities. The qualifications of female students were not accepted until 1913 in the North-eastern Imperial University (Hata et al., 2008, pp. 66-67). Except for Imperial University, local public and private universities had long lacked accreditation. Their degrees were recognized after the Osaka City Business Movement in 1928 (Hata et al., 2008, p. 70).

Japan’s higher education system was taken over by the Joint Military Command (CHQ) after the Second War, which led to three trends. First, various typologies of institutions were transformed into a standard and unified university. According to the 11 principles of the Ministry of Education stated in 1948, different institutions in the same region were merged into one comprehensive university. Second, the state-centred imperial universities were turned into decentralized county-level universities. Third, the government abolished the limit on private university establishment. Since then, private schools have replaced public universities and become the major higher education providers. Owing to cultural differences between Japan and the United States, in 1954, the Japanese government created a five-year college system that combined the short-term college and the vocational college. Thereafter, the Japanese university system was divided into two systems: the university and the short-term university. To meet the needs of higher education brought by the post-war baby boom and economic development, the short-term university has expanded rapidly since the 1960s. Under the recommendation of the OECD investigation team, university reform strategy moved toward diversification and a consumer-orientation. On the one hand, Japan’s government began to suppress the growth of private schools, and on the other hand, it provided funding subsidies to support private universities and to reduce the

tuition burden on students. It was not until the 1980s that the neoliberalism policy was adopted again. Since the 1990s, public universities have been forced to become independent administrative institutions to reduce the burden of government expenditures. The government has removed public university regulations and has asked them to join the global higher education competition (Hata et al., 2008).

After World War II, the Japanese Imperial University model was destroyed and shifted to the American Humboldt model, which integrates research and education in the university. The Humboldt model emphasizes that education aims not only to provide professional skills but also to allow students to build individual character by choosing their own way. In the process of decolonization, Japanese colonial universities in Korea and Taiwan were also affected by the American education system after the democratization movement and they entered the new era of massification and commercialization of higher education.

Because of the Korean War, which began on 25 June 1950, the higher education system in South Korea was not reconstructed until 1953. Initially, it was difficult to implement the policy of “One country, One university” due to financial problems. With the economic boom of the 1970s, the limit on private schools was removed during the period of *Quan Doo-hwan*’s reign. Since then, higher education has expanded rapidly and South Korea has become one of the fastest-growth countries in the world. The South Korean government maintains a diverse higher education system, including normal schools, vocational colleges, universities, comprehensive universities, and graduate schools. Students in normal school pay lower tuition fees and have an obligation to serve in return. The comprehensive university is a large university with a number of colleges and graduate schools and research institutes in different disciplines. The term “university” refers to colleges that are composed of different disciplines and their scale is generally smaller (Umakoshi, 1989/1996). After a series of reforms in higher education, the United States’ flexible tuition policy was introduced, which has made South Korea the country with the highest gross enrolment ratio and the largest increase in tuition fees. However, the sub-replacement fertility level in South Korea has led to a decrease in student populations since 2010. The Korean government announced its “University structure reform plan for the improvement of the quality and the rapid decline of the school-age population” in 2014, which intends to decrease the student quota for schools according to its evaluation. The final goal is to reduce 160,000 student quotas in the future (Huang, 2014).

Higher education in Taiwan was influenced by the Kuomintang (KMT), led by Chiang Kai-shek. The KMT was defeated by the Communist Party of China (CPC) and shifted from China to Taiwan after the Chinese Civil War in 1949. The KMT took over the Japanese colonial higher education system and established new universities in the name of universities in China. To control higher education, the KMT regime built a dual hierarchy between the private and public, professional, and vocational educational systems. The purpose of public universities is to serve the needs of bureaucracy, while the purpose of private vocational schools is to serve the demands of economic development. When martial law was lifted in 1987, higher education entered an era of tremendous expansion. Normal and vocational schools were upgraded to colleges and later to universities, and at the same time, local schools were converted into national universities. In 1996, the Ministry of Education opened the door for establishing universities and allowed vocational schools and colleges to upgrade into technical universities (Tai & Lin, 2015). In particular, normal schools—a colonial institution for training and controlling teachers for primary and secondary schools, were upgraded into colleges and then educational universities, finally becoming a comprehensive university by combining with other vocational schools (Tai, 2015). Later, to win the local election, the “One country, One university” policy was proposed by KMT to stimulate the community economy and local development. The expansion of public universities in countryside

accompanying the increase of private technological university from upgrading vocational schools caused an oversupply of higher education in Taiwan.

The higher education systems in the three countries have followed different trajectories under the guidance of post-war state policies. Higher education in Japan is divided into two systems: universities (a four-year system) and short-term universities (vocational schools). Students have to choose the university or non-university system when they are in secondary school. In South Korea, higher education includes a variety of educational systems, such as universities, educational universities, industrial universities, technical universities, and specialized schools. Students are free to enter various higher education institutions according to their ability and financial means. Taiwan's higher education system was divided into public universities and private vocational education, which respectively, serve the needs of the state and the market. Different from Japan and South Korea, after the policies of upgrading vocational school, the line between universities and vocational schools has been blurring. Students in secondary schools are all encouraged to enter a university no matter their interests, aptitudes and abilities.

### **Toward Neoliberalism**

The American system has become the model for the three countries, not only in respect of student education but also in academic research and wider engagement in social change. In order to meet the public's needs for higher education, the governments in Japan, South Korea, and Taiwan have all adopted an open policy for the establishment of private schools. Under the ideology of neoliberalism, their higher education systems have shifted from public elitism to massification by means of marketization and commodification. Marketization and commodification should be regarded as related but separate terms. The concept of "marketization" refers to "the process by which the state uses market principles and normative tools to create the greater efficiencies in non-market organizations. Since the states' allocation for higher education has declined, an increasing privatization in higher education brings a responsible for generating revenues in line with their expenditures" (Canaan & Shumar, 2008, p. 4). Marketization implies that states give way to the market, and the major higher education market is created and provided by private sectors on the one hand, while on the other hand, educational resource management and distribution also follow the rules of performance and evaluation. The concept of commodification implies "the process of turning social goods and process into commodities" (Canaan & Shumar, 2008, p. 4). Commercialization shows a penetration of market power, such as flexible pricing for tuition, industry-university cooperation, and privatization of intellectual property. The reduction of state funding for universities push universities to have a corporation with enterprise, or even turn into enterprise universities.

### **Marketization of Higher Education**

The index of expenditure on higher education as a share of GDP (see Figure 1) shows that the investments of the three societies below the average of OECD countries, at 1.2%. The extant decline in state support for public higher education is significant, obviously the lowest in Japan, at only 0.5%, while South Korea and Taiwan are at about 0.8%. In contrast, the funding invested by the private sector shows that the ratio of the higher education share of gross domestic product in Taiwan is the lowest, at only 0.8%; in Japan, the number reaches 1.0%, and South Korea comes in the highest, at 1.5%. They share a common transformation of higher education from elitism to massification through an expansion of the private sector, and at the same time, the

establishment of a hierarchy of higher education that links to the introduction of ranking and evaluation system (Umakoshi, 1989/1996, p. 45).

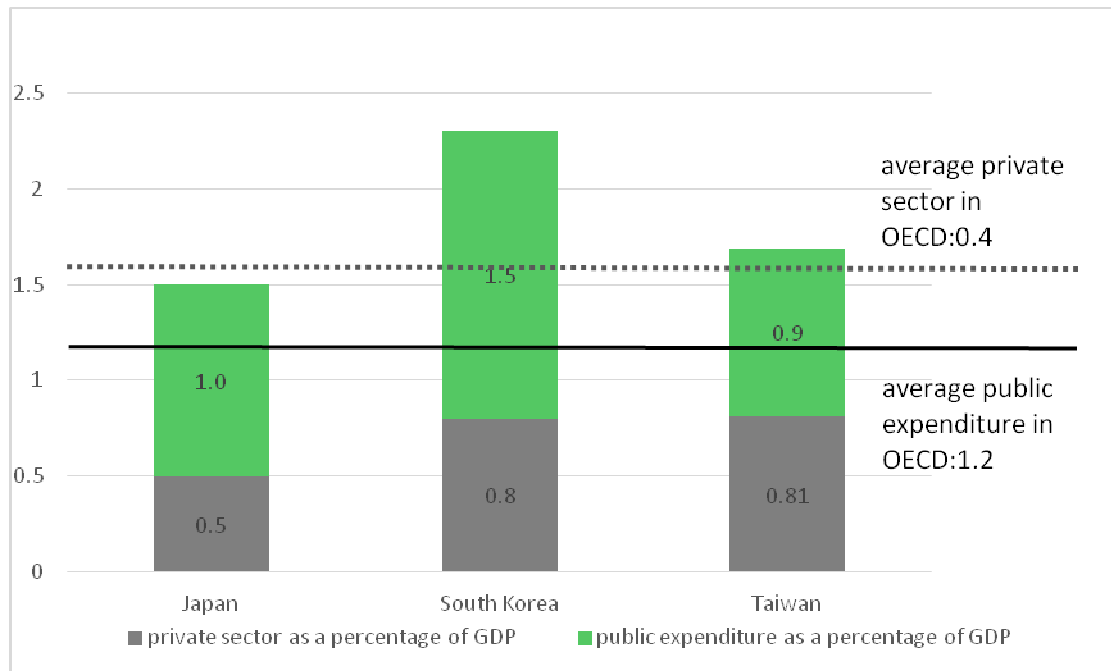


Figure 1. Expenditure on educational institutions as a percentage of GDP, 2012.

Source: The data of Japan and South Korea are from Education at a Glance, 2015. OECD indication; the data from Taiwan are from 2016, International Education Statistics, p. 59, Ministry of Education, ROC).

Perhaps the most notable fact is that the population of students in higher education increased earliest in Japan, at 1.68 million in the 1970s, 2.66 million in the 1980s, and 3.01 million in the 1990s; the number peaked in 2011. Since then, it has been shrinking rapidly, at 2.87 million in 2016. The decrease rate in the period of 2011 to 2016 is 5% or about 158,683 persons. In South Korea and Taiwan, the large-scale expansion in higher education did not begin until the 1980s. The number of students in South Korea was 130,000 in the 1970s and 590,000 in the 1980s; it then jumped to 1.49 million in the 1990s and then more than doubled to 3.74 million, its peak, in 2011. There was a turning point in 2015, when the number of students reduced to 3.61 million, a growth rate of 3.4%. There is a similar trend in Taiwan, where the population of students was only 100,000 in the 1970s; it grew slowly in the 1980s and 1990s, to 160,000 and then 260,000, climbed rapidly to 650,000 in the 2000s, spiked at 1.24 million in 2010, and then decreased to 1.23 million in 2015, a growth rate of 2.0% (see Figure 2).

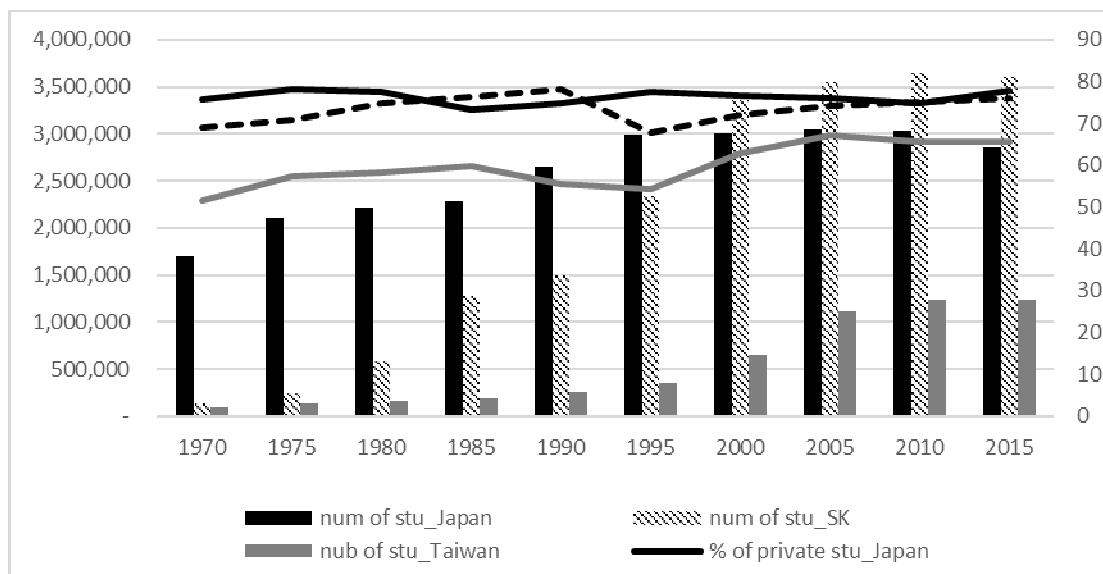


Figure 2. The number of student and percentage enrolled in private institutions in tertiary education.

Source: The data of Japan are from A survey of faculty and staff, Ministry of Education, Science, and Culture; The data of South Korea are from Summary of Institutions of Higher Education (1) Statistical Year Book of Education, Kess; The data of Taiwan are from 105 Taiwan Education Indicator, Ministry of Education, ROC.

Notes. 1. The number of Japan is including 4-year colleges, universities and short-term universities;

2. The numbers of 1970 and 1980 of South Korea are unavailable and replaced by 1971 and 1981.

One common characteristic of higher education in the three societies is that the population of students increased mainly in private technical universities, which had just upgraded from vocational schools. The public institutions did not grow fast enough to accommodate the rising demands for higher education, which were mostly absorbed by private sectors. The expansion of private schools occurred earlier in Japan than in South Korea and Taiwan. The percentage of private enrolment was more than 75% in the 1970s; it reached 77.8% in 2015. In South Korea, from 1970 to 2015, the percentage of students in the private sector increased from 68.9% to 76.2%. Meanwhile, in Taiwan, the percentage of private enrolment grew slowly, from 51.6% to 65.6%. Public institutions attract the best-qualified students, usually coming from high-income families, while private institutions cater to the needs of students from low-income families. The phenomenon of growing disparity creates unequal opportunities for young students in households of various income levels throughout the higher education system.

### Commercialization of Higher Education

The tuition fee is an important indicator of commodification. The disparity of payments between public and private universities is smaller in South Korea, where the average tuition fee for public universities reaches 85% that of private universities. In Japan, the price of tuition in national universities is slightly lower than in local universities, reaching 60% to 64% of the tuition fees of private universities. In Taiwan, the gap tuition fees of public and private universities are the smallest one. The tuition for public university is about 50% that of private universities (see Table 1). This extra funding from the private sector has been responsible for enhanced facilities and teachers' qualities in Korea rather than in Japan or Taiwan, where tuition fees are still controlled by the state.

Table 1

*A Comparison of Tuition Accounts for GDP (at Purchasing Power Parity) per Capita: Japan, South Korea, and Taiwan, 2015 Unit: USD %*

Society item	GDP (at purchasing power parity) per capita (A)	Average tuition fees (B)			B/A (%)	
		Public schools (C)	Private Schools (D)	C/D%	Public schools	Private Schools
Japan	41,275	10,249	16,492	62.1	24.8	40.0
South Korea	37,740	2,023-10,820	4,479-9,337	45.2-115.9	5.4-28.7	12.6-24.7
Taiwan	48,095	1,840	3,445	53.4	3.8	7.1

Source: 1. The data of GDP (at purchasing power parity) per capita from Global Note, IMF, <http://www.globalnote.jp/post-12805.html>, accessed 20 Aug., 2018.

2. Tuition fees of Japan and South Korea is from International Education Statistics, Ministry of Education, Culture, Sports, Science and Technology, 2018 [http://www.mext.go.jp/b\\_menu/toukei/data/syogaikoku/1396544.htm](http://www.mext.go.jp/b_menu/toukei/data/syogaikoku/1396544.htm), accessed 20 Aug., 2018.

3. Tuition fees of Taiwan is from Indicators of Educational Statistics, Ministry of Education, ROC. [http://stats.moe.gov.tw/files/important/OVERVIEW\\_Y08.pdf](http://stats.moe.gov.tw/files/important/OVERVIEW_Y08.pdf), accessed 22 Aug., 2018.

Furthermore, in terms of tuition fees, the higher education systems in Japan and Taiwan adopt a single tuition system, while a system with variable fees has been introduced in South Korea. The variations in tuition are large between publicly or privately established institutions, rather than among academic ranks and fields (one exception is medical college). In Japan, the oversupply private sectors are facing the loss of students who cannot afford the high tuition fees. In Taiwan, under pressure from the privileged students and their parents, Taiwan's government is forced to maintain control over tuition fees for both the public and private sectors. The low tuition policy for private sectors is at the expense of low teachers' wages and high teaching burdens. Furthermore, to suppress the development of private schools, the state adopted a different tax rate for enterprise donations, in which private schools pay only 50% of the tax rate compared to public schools. In so doing, a public-private university hierarchy was built to consolidate the authoritarian KMT regime's hold on the resource, as well as to control the quantity and quality of national elites.

In contrast, the South Korean government has implemented a flexible tuition system. Tuition variations are based on the academic rank of the university, on the field of study, and even on students' performances. The variation in tuition between public and private university ranges from 54% to 116%. The differences between tuition fees for public and private universities are the lowest in the humanities and the social sciences, ranging from 96% to 113%, while the differences are the largest in the fields of art and sport, ranging from 39% to 121%. The disparity of tuition in the same discipline among public universities is up to five times, especially in humanities and social sciences, where it can reach 5.7 times. The National University of South Korea is not required to play the role of providing cheaper tuition fees for disadvantaged students; instead, the prestigious public schools actively join the competition in the higher education market.

To sum up, higher education in the three societies has been criticized as moving towards marketization and commercialization. Though both often occur simultaneously, they have different development models due to the differences in the institutions, social policies, and most important, responses to the trends from students and their parents. Comparatively, Japan shows a high-market, low-commodity model; South Korea is developing towards a high-market, high-commodity model, while Taiwan's system represents a moderately market-oriented and low-commercial model.



Marketization refers to the pattern of national resource allocation, which can determine the scale of higher education and the way public resources are used. All three of the governments pave way for marketization and privatization. Private investment in South Korea is increasing and compensating for the reduction of state sponsorship of higher education. In contrast, the Japanese government continues to reduce its budget for higher education, while investments from the private sector are also stagnant. Taiwan's government continues to increase its investments in higher education, whereas investments from the private sector are insufficient and shrinking.

Commodification means that the price of educational goods is largely determined by the market. In these societies, states have adopted a tuition control system to suppress the rise of tuition fees. However, the governments of Japan and South Korea both embrace a high tuition policy, while Taiwan's government continues to maintain a strategy of relatively low tuitions. Another significant difference lies in the fact that South Korea has adopted a system of flexible tuition fees, while Japan and Taiwan maintain fixed tuitions. The strategies of students and their parents to gain access to higher education reflect students' abilities as well as parents' affordability and the families' value of the higher education system.

### **From Social Investment to Human Capital**

In the past decades, in what has been dubbed an "Asian new-industrializing economy", Japan, South Korea, and Taiwan have shared successful development based on their science and technology. States have invested a large amount of education funds in science and engineering, which helps to consolidate the state's legitimacy and assure political stability by promoting economic growth. However, with the expansion of higher education, the proportion of engineering students in Japan, Korea, and Taiwan has decreased, at 24.4%, 26.6%, and 24.8%, respectively, while the numbers of students in the natural sciences dropped to 4.0%, 11.6%, and 7.3%, respectively. This trend is notably significant in Japan, which used to be regarded as a leading industrializing country proud of its advanced technology; it now faces a shrinkage of talent in science and engineering. In contrast, the South Korean government is more eager to take part in the global university competition by maintaining its level of talent in the natural sciences by means of encouraging private investments.

Why are these three societies all losing their students in the natural sciences and engineering? There are three reasons. First, the expanded disciplines in the private sector are mainly in the fields of humanities and the social sciences, which enjoy lower costs for staff and facilities. Comparatively, the "feminization" of the academic profession is more significant in Japan, at 37.8%, than in South Korea and Taiwan, at 28.6% and 24.8%, respectively.

Second, responding to the shift in industrial structure from manufacturing to the service sector, the demand for human resources has also changed from the natural sciences and technology to the humanities, the social sciences, and management. Institutions in the private sector have to respond to the rising needs of the labour market and increases in the fields of law, finance, management, and design, though academic professions in public universities are still led by science and technology research. When comparing investments in the humanities and art, South Korea leads, at 13.3%; Japan and Taiwan account for 10.2% and 10.5%, respectively. South Korea has attached great importance to art and design disciplines in universities and encourages new economic development in its so-called cultural and creative industries. In addition, to cope with the coming aging society, medical science has become a newly dominant discipline, especially in Japan,

where the percentage of medicine has risen to 8.6%. In South Korea and Taiwan, it has reached 5.6% and 6.5%, respectively.

Higher education in OECD countries has developed towards “feminization”, which refers to high enrolments of female students, increases of female faculty, and expansion in the fields of art, literature, and the social sciences. However, gender segregation is still significant in higher education in the three societies, where male students tend to choose to study natural science and engineering, while female students are more willing to major in art, literature, and the social sciences. For women, gender segregation influences their choice of major and their professional status. In Japan, the percentage of female students in disciplines related to law and politics is lower than that of males, while South Korea and Taiwan have higher percentages of female students engaged in the fields of law and politics. The development of academic professions is expected to respond to gender roles and sexual divisions within their broader social context.

Third, under the shrinkage of higher education, a large number of new departments and disciplines have been created in higher education systems. Taking Japan as an example, between 1990 and 2010, 385 departments were renamed, and 19 new departments were created. The term “big explosion in Cambrian” was used by Yoshimi (2016, p. 120) to describe the constant establishment of new departments for the purpose of attracting students.

The challenges for higher education are unavoidable given the oversupply of higher education in these three societies in combination with the transformation of population structure in the three countries since 2010. To maintain competitiveness of higher education, the Japanese government has asked public universities transform into independent administrative institutions, which have considerable autonomy in their operations and the use of their given budgets. In 2016, public universities were requested to restructure their organizations, determine their advantages in specific fields, and shut down or merge uncompetitive departments, including most departments in the humanities and social sciences. Public universities in South Korea and Taiwan are facing a restructuring of higher education by introducing new departments and disciplines. In contrast, South Korea restructures higher education system through performance evaluation which decides the student quotas, tuition fees, and funding for universities. Comparing with Japan and South Korea, the government of Taiwan inclines to push private sectors transferring into cultural or welfare industries. At the same time, the private sector’s investment in higher education is market-oriented, which overlooks those academic professions without market value. The so-called abolition of humanity triggered a debate in 2015 in Japan on the value and function of higher education. To attract decreasing number of students, diverse commercialized higher-education goods are produced, which in turn transform the tasks, functions, and qualities of the university.

### **The Limit to Growth**

Higher education is entering a new era of mass consumption. The autonomy of human resources investment has increased, and the need to purchase educational goods has become a freedom of rational choice for individuals and families. Although the structures of higher education in the three countries are similar, due to differences in cultures and higher-education policies, the opportunities and choices of higher education made

by individuals and families are limited. First, in terms of gross enrolment ratio<sup>1</sup>, Japan is the lowest of the three, at 62%—even worse than the average of OECD countries, at 70%. In contrast, South Korea and Taiwan share amazing levels of enrolment, at 93% and 84%, respectively (see Figure 3). Why does Japan, a leading country in science and technology, have an unexpectedly small population with higher education? It is believed that insufficient numbers of students due to sub-replacement fertility levels are one factor in the oversupply of higher education. However, an ignored factor is gender and its effect on higher education. Gender disparity in higher education is still significant in Japan. For example, the enrolment rate of men is 65%, close to the OECD level of 63%, but that of women is quite far behind most developed countries, at only 58%. In South Korea, the enrolment rate of men is alarming, at 112%; that of women is 84%. In contrast, in Taiwan, the gross enrolment rate of women, 88%, is higher than that of men, at 81%. Consistent with the development of OECD countries, women now account for a majority of undergraduate students nationwide. Though the higher education markets in Japan and South Korea are approaching saturation, the enrolment ratio of women remains low in Japan.

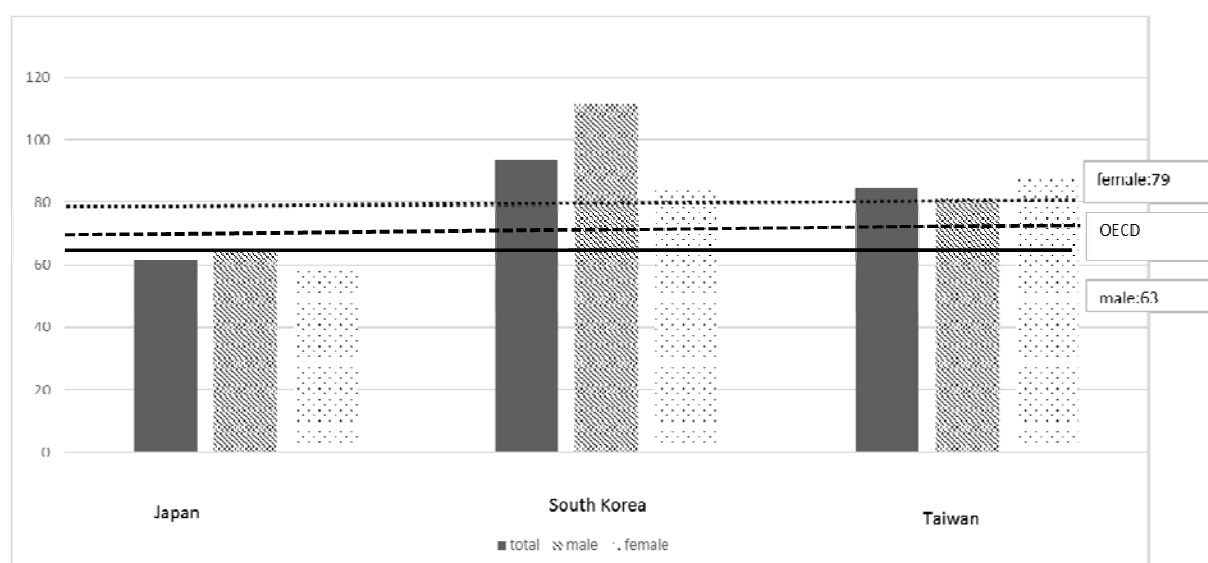


Figure 3. Gross enrolment rate by gender, 2012.

Source: UNESCO, <http://www.uis.unesco.org/Education/Pages/default.aspx>, accessed 26 Aug., 2016.

While a number of the best schools are public universities, attending a private institution, is unavoidable for most students who intend to obtain human capital. With increases in tuition fees, the threshold for entering higher education is also rising. However, the family burden for tuition fees varied in the three societies. The average GDP (at purchasing power parity) per capita (PPP) of Taiwan is US\$46,783, which is higher than that of Japan and South Korea, at \$48,095 and \$37,740, respectively (see Table 1). The ratio of tuition to purchasing power of the average national income ranges from 0.04% to 0.07% in Taiwan, while it ranges from 0.27% to 0.43% in Japan. In South Korea, the ratio of public school tuition to PPP ranges from 0.06% to 0.30%, and tuition for private schools represents 0.12% to 0.26% of PPP. Students in South Korea are benefited by flexible tuition fees. In contrast to the situation in Japan and South Korea, low tuition policy helps Taiwanese students attain higher education.

<sup>1</sup> Gross enrolment rate is to divide the number of students enrolled in third education by the population of the age group corresponding to the specified level, and multiply the result by 100.

In term of the rewards of higher education, the enlargement of higher education markets has also contributed to a decline in wage levels for individuals with higher education. Table 2 shows the wages of employees with higher education degrees compared with those who have secondary education. In Japan and South Korea, wages for employees aged from 55 to 64 with higher education degrees are more than twice those of workers with secondary school degrees. However, wages differences decline for the generation from 25 to 34 years old. One exception is Japanese female employees. Workers of the new generation who have a higher education degree earn about 2.3 times comparing with older generation who have a secondary school degree. In Taiwan, the returns on investment in higher education is lower for men than for women, and Taiwan's men are the worst, with a return of only 1.24 times comparing that of their female counterparts, 1.37 times. The wage gaps between different generations are significant.

Table 2

*Relative Earnings of the Population With Income From Employment by Levels of Educational Attainment and Gender (High School = 100)*

	Gender	25-64	25-34	55-64	B/A (%)
			A	B	
Japan 2012	Male	195	149	221	148
	Female	222	230	216	94
South Korea 2013	Male	183	154	230	150
	Female	195	178	286	160
Taiwan 2013	Male	143	124	-	-
	Female	181	137	-	-

Source: 1. The data for Japan and South Korea are from *Education at a Glance, 2015*, OECD Indicators, p. 116, <http://dx.doi.org/10.1787/eag-2015-en>, accessed 22 Aug., 2018.

2. The data of Taiwan are from *International Comparison of Education Indicators*, Ministry of Education, ROC 2015. [http://stats.moe.gov.tw/files/ebook/International\\_Comparison/2017/i2017.pdf](http://stats.moe.gov.tw/files/ebook/International_Comparison/2017/i2017.pdf), accessed 22 Aug., 2018.

When considering the purpose of higher education from the viewpoint of human capital theory, the decision by an individual or family on higher education is based on the cost-benefit evaluation principle. Japan, owing to the policy of a high tuition fee system, has been suffering from a decline in its gross enrolment rate since 1977 (Kikuchi, 2003). The gross enrolment ratio is decreasing significantly in Japan due to the rise of tuition fees, accompanying a decline on the return on investment of higher education. Individuals and their families are reluctant to pay expensive tuition fees. As early as the 1970s, Asō (1973) observed that the economic value of diplomas, along with the university's functions as performance evaluation, integration, and education, has been reduced. Furthermore, he predicted that the academic qualification system may collapse in the future. A recent study by Hasegawa (2004) showed that high school students' choice to give up on higher education attainment is caused not only by high tuition fees but also by the uncertainty of employment and the likelihood of finding themselves in low-wage jobs. This has led to the deflation of higher education, and now Japan is losing its advantage in research and advanced technology.

In comparison, the South Korean government has adopted a flexible tuition system to meet the demands of households with different socio-economic status, and this helps reduce the pressure of rising tuition. However, university competition and the ranking system for universities strengthens credentialism and degree deflation, which benefits those students who come from families of higher socio-economic status and consolidates social inequality between the classes of have and have-not.

On the other hand, Taiwan's government has implemented a policy of low tuition fees, in which the cost of higher education for individuals or households is relatively lower, and thus, the opportunity for disadvantaged groups to access higher education is more equal. Nevertheless, the results of policies that achieve lower costs, such as low wage of faculty, the deterioration of teachers' working conditions, or increases in the numbers of students in classes, unavoidably reduce the quality of higher education. The dilution of resources caused by the expansion of the higher education population further blurs the distinctions between universities and vocational schools, which both aim to teach practical skills to meet the needs of the labour market.

### **Conclusion: An Emerging Reflexivity in Higher Education**

#### **From State to Market: Discovering Reflexivity in Higher Education**

At present, Japan, South Korea, and Taiwan, the so-called new industrializing and diplomatic societies, are facing transformations of higher education. Neoliberalism, a free-market ideology, having become increasingly influential in the higher education sector, is embodied in developments, such as interinstitutional competition, the emergence of league tables, and the move from state-funded to student-funded costs. Owing to the intervention of state policies and the response patterns of society in each country to the changes in the higher education systems, various educational landscapes can be found (see Table 3).

The concepts of marketization and commercialization are used to analyse the transformation of the higher education systems. In terms of marketization, the investment of Japan's government in higher education is the lowest of the three, even less than the average for OECD countries. In contrast, the private sector in South Korea provides the highest input for higher education. Although there are disparities and competition between public and private universities, the private sector plays a vital role in the higher education systems of Japan and South Korea, but not in Taiwan, where private universities are suppressed. In Taiwan, owing to state control of fees and tax rates on enterprises' donations, both state funding and inputs from the private sector are insufficient for private institutions. Although political regimes in South Korea and Taiwan have shifted from authoritarianism to democracy, states continue to regulate the leadership, human affairs, funding subsidies, student quotas, and tuitions of higher education. Public universities in all three societies are facing fierce competition to obtain limited resources, while private sectors are oversupply and being closed resulted from the loss of student populations.

From the viewpoint of commercialization, both Japan and South Korea have adopted a policy of high tuition fees, but South Korea has implemented a flexible tuition system in which the tuition fees are varied between disciplines and departments, as well as the academic ranking of a university, rather than public or private sectors. As a result, the tuition for a high-ranking public university may be higher than the price of private university, while some private schools may be less expensive than public ones. One consequence of high tuition is the decline of gross enrolment rate that results from the fact that most households are unable to pay the tuition; moreover, the return on higher education investment is not as high as expected. Japan has already fallen into higher education deflation. This especially affects female students, who give up the opportunity to attain a university education because they are still expected to become a wife in a home instead of an employee in a workplace. Comparatively, regardless of whether a university is private or public, the tuition fees in Taiwan are cheaper and affordable for most families, thus increasing the opportunity for all students to access to higher education—leaving aside the question of whether university really worth it? (Chang

& Lin, 2015). However, the low tuition policy may benefit students from poor families, but it is harmful to the quality of higher education, degree deflation and further increases the state's financial burden.

On the other hand, the South Korean government has implemented a flexible tuition system based on the demand for different fields and disciplines. Under this system, universities will provide diverse departments and programs with different prices for different students, and students can choose their schools according to their individual abilities and family income levels. However, students in soft disciplines, undergraduate programs, and low-tier universities pay unproportioned costs, in terms of the benefits they receive, when compared with their colleagues in hard disciplines, graduate programs, and top-tier universities (Kim & Lee, 2006). Similar to the experience of higher education in United Kingdom, the market mechanism results in increases in tuition fees that may disadvantage students from poor families and therefore increase social inequality (Giddens, 1999).

In the context of the transformation of higher education, its prevalence and social and cultural roles are in a state of constant change, being influenced in turn by market forces, education policies, and institutional and cultural practices. Since the 1990s, higher education has changed dramatically—not only in size and provision but in terms of its engagement in global higher education competition. Riesman (1980) proposed the term “student consumerism” to empower students, an attitude reflected in increased litigation against colleges by students and expanded federal efforts to protect students' interests by regulating institutions. However, student consumerism may not be narrowly defined merely by viewing the relationship between student and institution as similar to the relationship between customer and seller. It also justifies the changing role of students in the higher education system and it reverses the power relation between student and teacher, between family and university, and the power between market and state on higher education. Now, higher education is not merely the field dominated by states and professors but a decision by individuals and families based on the principles of employability and their potential income.

Another common characteristic of higher education of Japan, South Korea, and Taiwan have to respond to the emerging American knowledge model. Higher education systems shift from state-led hard disciplines, such as science to market-led soft disciplines, including the humanities and management. Traditional disciplines in higher education are replaced by new ones that meet the needs of human resources, shifting from manufacturing to the service sector. Simultaneously, higher-cost disciplines, such as science and engineering, have to rely on the support of national resources for their sustainable development. From the supply side, upgraded colleges and vocational schools continue to establish new disciplines, mainly emerging in the humanities and the social sciences, which offer low costs and low entry thresholds for students. From the demand side, de-industrialization has led to a decrease in demand for workers in science and social science, with a concomitant rise of demand for management and business human resources in the service industry. Moreover, to respond to the coming aging population, medicinal science has become a popular major that has attracted its establishment in medicine-related departments in colleges, universities, and university hospitals. Despite of the boom in cultural and creative industries, the development of the humanities and art still depends on the state's industrial and educational policies. For example, the South Korean government is actively encouraging majors in design and performance to meet the needs of global entertainment.

“Degree deflation” refers to the phenomenon of salary failing to grow appropriately with increasing degrees of educational attainment. Even worse, individuals attaining higher education face difficulty in finding appropriate positions. The above-mentioned salary gaps between those with higher education degrees and with

secondary degrees are decreasing. In Japan, accompanying unaffordable tuition fees for low-income families and the student population is also limited. In South Korea, higher education is too expensive and gains unproportioned reward for those students who come from lower economic family. Even with low tuition fees, Taiwan suffers from low wage rates for members of the new generation when they obtain higher degrees. However, one exception is Japan's women: when they obtain higher degrees, their achievement will be rewarded with higher returns. These observations show that a higher education degree will not be attractive for students if they only consider the return on their investments, rather than achievement, self-realization, and family satisfaction.

### **The Application of Reflexivity in Higher Education Policy**

While there are common problems in higher education among Japan, South Korea, and Taiwan, many differences also exist. A comparative study will prove useful for understanding the challenges they may confront and gaining enlightenment through reciprocal learning. With regard to the transformation of higher education in Japan, Yoshimi criticized the shift from "a learning community of citizens" to "an enterprise for vocational training of bureaucracy". Public investment is decreasing and the fixed-rate tuition plan does not allow universities to set different prices according to their performances. The low gross enrolment rate shows that the high tuition fees and the decrease in returns deter individuals and families from investing in higher education—especially for women, who are asked to stay at home instead of work. The low participation of females in higher education and therefore in the labour market represent a loss for Japan for female labour force, although women enjoy higher income rewards than do men when they obtain higher degrees. Prime Minister Abe of Japan proposed an economic growth strategy of "female empowerment", aiming to stimulate female employment. Nevertheless, eliminating gender discrimination and encouraging women to attain higher education remain significant challenges for Japan.

In South Korea, the higher education system has shifted to a market orientation, in which the private sector replaces the state as the main source of investment. Heavy reliance on private funding has redefined the role and function of higher education and consolidated the existing privileged class by means of evaluation system. Moreover, the flexible tuition system reflects the position and status of a university in the global educational hierarchy. Public universities no longer play a role in training national elites in bureaucracy, but in competing with top universities for better students and world-class rankings. Quality control for lower-end institutions may become a current policy issue in the market-based system (Kim & Lee, 2006). Students are forced to participate in a fierce competition for entering a prestigious university. They believe that a good degree from prestigious university brings the possibilities of income and status in the future. However, an unintended consequence is a rise in the suicide rate among youths, resulted from intense competition during their lives. South Korea has become a so-called "life-disrupting society", where the young generation experiences the lowest happiness levels in the high-income OECD (Korea Institute for a New Society, 2016).

Different from Japan and South Korea, Taiwan's government has adopted a low-tuition policy and consolidates a hierarchy of university system between publicly and privately established institutions. The consequences of high competition and insufficient sponsorship are the decrease in educational quality and the worsening of teachers' working conditions. Without quality assurance, increasing numbers of college diplomas per se damage both individual careers and social well-being, although the opportunity to access a university is assured. The major issues are to encourage private-sector investment and to re-establish tracking during secondary education.

Higher education in these societies faces a similar transformation from state-led national elitism to market-led massification by means of privatization and commercialization. The purposes of higher education in Japan, South Korea, and Taiwan were not only to meet the practical needs of social and economic development but also to serve the purposes of governance. However, with the over-supply in higher education, the right to choose higher education shifts from states and educational institutions to individuals and families. At present, a decrease in the number of students can be regarded not only as a crisis of higher education but also as a turning point in how states restructure their higher education systems and adjust their goals for the allocation of educational resources. Based on market principles, on the one hand, some basic disciplines, such as physics, chemistry, and mathematics, as well as philosophy, the humanities, and the social sciences, may lose students who consider the possibilities of employability and wages. On the other hand, some practical disciplines, such as engineering, finance, law, and business management, may face an over-supply of human resources.

Giddens (1999) regarded education as a “state’s positive social investment”, which is fulfilled through cooperation between the public and private sectors. He proposes a “generative model of equality”, which implies that people have the right to choose higher education and that they can decide when, why, and how to accept higher education or not (2000, p. 191). Under the severe financial crisis, it is important to redefine the roles and tasks of public and private universities and to ensure that students, whether they come from rich or poor families, can take part on an equal footing in learning and working. The challenge for states is how to bring the public and private sectors into cooperation to meet the diverse demands of different populations.

Finally, there are two suggestions for higher education in the three societies. First, states have to adjust and define their roles in higher education. One important task of the state is to contribute resources in basic sciences or selected applied sciences that benefit social well-being, such as basic science and the social sciences, for example, mathematics, physics, philosophy, sociology, and literature, which may lack incentives for attracting investment from the private sector. In contrast, education in most practically orientated disciplines, such as medicine, law, finance, and management should be paid by parents and students who are looking for better opportunities and careers in the labour market. Second, the diverse programs, not only for young students but also for adults, provided by different universities, colleges, and vocational schools might be a solution for the over-supply of higher education institutions. The crises in higher education will bring a revolution for the old institution of university which plays a role not only for a selection of national and social elites but also providing an opportunity of lifelong learning for citizens.

Table 3

*A Comparison of Higher Education Among Japan, South Korea, and Taiwan*

Country item	Japan	South Korea	Taiwan
Marketization	State-led resource allocation; public university and prestigious private university have a competitive advantage	Market-led resource allocation; public university and prestigious private university have a competitive advantage	State-led resource allocation; public university has a competitive advantage
Commercialization	High, fixed tuition	High, flexible tuition	Low, fixed tuition
Market	Deflation	Saturation, excess enrolment rate	Saturation, excess enrolment rate

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