Chapter 3
Taiwan's Higher Education Policy: From Neoliberalism to Public Goods (Higher Education in Taiwan: Global, Political, and Social Challenges)

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Abstract Neoliberalism and public goods have each provided an approach to quality assurance in higher education and the interconnected well-being of society. In 2000, in the pursuit of educational excellence and global competitiveness, the Ministry of Education launched a series of competitive funding projects to supplement the general funding scheme. Simultaneously, policies were instituted to provide incentives to universities. These were for the development and reforming of core collegial processes to strengthen the capacity of the academic profession to improve performance. While the concept of public goods has become a crucial purpose in the higher education system for substantive development. The aim of this chapter is to consider the change in Taiwan's implementation of policy from neoliberalism to public goods. The chapter will review the concept of neoliberalism, public goods, and how policy is being driven by the Higher Education Sprout Project (HESP). First, the development of the higher education system is briefly described. Second, the increasing competition that comes with improved institutional quality within a neoliberal context is discussed. Third, it focuses on the ambiguous university–business links, and the fact that these are questionable and that public concerns have led to the idea that, in neoliberal times, universities should reconsider the locus of their public goods. Fourth, the effect of the HESP is examined and conclusions are drawn. This chapter focuses on the challenges that may be faced by the higher education system under a shift in the policy paradigm. It implies the government's authoritarian control of higher education institutions began to loosen and universities were handed decision-making powers on matters related to teaching, research, and learning. In answer to the question of whether public goods can work well with higher education reform, the findings suggest that the partners need to engage with the new policy implementation in order for this to be the case.

Keywords Education policy · Higher education · Higher Education Sprout Project · Neoliberalism · Public goods

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3.1 Introduction

After 20 years of scholarship on neoliberalism in higher education, its main tenets have been absorbed into designations such as the corporate university, the entrepreneurial university, and the neoliberal university. Critical voices have shown that all universities are now entrenched in academic capitalism, internally distorted by an audit culture and governed by managerialism that is embroiled in internal conflicts over the purpose and conditions of academic work (Bottrell & Manathunga, 2019, p. 2). Like other Asian countries, Taiwan has introduced various neoliberal measures to transform the higher education system, such as decentralization, corporatization, deregulation, and performance-based initiatives (Chan, Yang, & Liu, 2018; Chiang, 2018; Hsieh, 2018). The basis of the policy (which incorporates the concept of public goods) is that higher education is interconnected with the well-being of society. The concept of public goods has played a significant role in positioning higher education over recent years. Various studies have focused on the topic of how research associations can promote the use of research to serve the public good (Eryaman & Schneider, 2017). For example, the American Educational Research Association (AERA) identifies the promotion of the use of research to serve the public good as its fundamental responsibility. AERA provides scientific evidence on the benefit of diversity in affirmative action via legal briefs submitted to the Supreme Court (AERA, 2016). The Australian Association for Research in Education (AARE) (2016) identifies its mission as enhancing the public good by promoting, supporting, and improving research and scholarship in education to generate high-quality educational research for the purpose of better developing society. The British Educational Research Association (BERA) (2016) is another NGO committed to working for the public good by sustaining a strong and a high-quality education research community, dedicated to advancing knowledge through education. These examples reveal that the public good has an important role in current education systems.

The ideas of both neoliberalism and public goods coexisted have had a crucial impact on contemporary higher education policy. Taiwan is no exception in the global context. In 2000, in the pursuit of educational excellence and global competitiveness, the Ministry of Education (MOE) launched a series of competitive funding projects to supplement the general funding scheme. Simultaneously, to improve performance, higher education policies provided incentives for universities to develop and reform their core collegial processes to strengthen the capacity of the academic profession. It is with reference to this that this chapter investigates how the policy has shifted from neoliberalism to public goods.

The chapter comprises five sections. First, the context of the development in the higher education system is addressed. It was in the mid-1980s that the authoritarian control of the government over higher education institutions began to loosen. As a result, one of the major objectives of higher education reform has been to implement competition as a method of increasing productivity, accountability, and control. Second, the meaning of public goods in higher education is addressed, with a focus on the challenges currently faced by the higher education system. The question of

why it is necessary to redefine the public goods is addressed. Third, the idea that ambiguous university–business links are controversial will be addressed, as well as the public concern that universities should reconsider the locus of their public goods in neoliberal times. Fourth, the effect of related higher education policies is reviewed; and finally, conclusions are made and suggestions offered for enhancing the higher education system.

3.2 Neoliberalism: Its Context and Impact

Neoliberalism is generally connected to the notion of globalization, largely because it is related to looser economic regulations and free trade. From a neoliberal perspective, the meaning of neoliberalism can be extended to include the goals of freedom of choice, consumer sovereignty, competition, and individual initiative. Neoliberalism demands compliance with and obedience to the constructions of the state as actualized by developing the techniques of auditing, accounting, and management (Olssen & Peters, 2005, p. 315). In this sense, neoliberalism is a critical element of globalization, constituting the theory according to which domestic and global economic relations are structured.

In higher education, neoliberalism has led to the introduction of a new mode of regulation and type of governance. The basic assumption of neoliberalism is that deregulation and institutional autonomy lead to superior institutional performance (Chang, 2015, p. 603). Proponents of neoliberalism surmise that it transforms universities into efficient organizations and output-oriented systems, and that under neoliberalism, governments tend to minimize rules and regulations to provide more institutional autonomy. However, governments are indirectly involved in higher education through various evaluation mechanisms (Ferlie, Musselin, & Andresani, 2008). For example, there are numerous evaluation indicators for quality assurance, accountability, and world rankings. Various governments tend to link the specific evaluation results to their funding allocation; consequently, evaluation mechanisms exert a strong influence on universities.

In last two decades, the MOE in Taiwan implemented several initiatives to enhance the quality of higher education, including the introduction of competitive funding schemes and allocation of resources to universities based on the quality of faculty research and instruction (Hou, 2012; Hsieh, 2018). As these reforms have been overwhelmingly shaped by neoliberal perspectives, the discussion in this paper focuses on specific concerns in higher education related to this trend. Under neoliberal thinking, governments' regulatory control has become an ambivalent measure (Chang, 2015, p. 604).

Realizing that globalization had accelerated global competition among universities (Lo & Weng, 2005; Lu, 2004; MOE, 2006), the government in Taiwan launched a series of large-scale projects to catch up with the rest of the world's higher education systems amid the powerful trend of globalization (Song & Tai, 2007). These included the Program for Promoting the Academic Excellence of Universities, the Program to

Promote the International Competitiveness of Universities, the Research University Integration Project, the Program for Improving Research University Infrastructures, the Program for Expanding Overseas Student Recruitment, the Plan to Develop World-Class Universities, and the Program for Rewarding the Teaching Excellence of Universities. Competitive funding was attached to each of these projects, and funds were allocated under the philosophy of "pursuit of excellence." Among these projects, the Plan to Develop First-class Universities and Top-level Research Centers receive the most funding (Chang, Wu, Ching, & Tang, 2009).

In 2006, the MOE launched the Development Plan for World-Class Universities and Research Centers of Excellence, also known as the Five-Year Fifty Billion Project. As the name suggests, 50 billion Taiwanese dollars were distributed over five years to selected higher education institutions with an academic record of high-quality research. Eleven universities were chosen for the first phase of the project, 2006–2010, while 12 universities received funding for the second phase, 2011–2016, which was renamed the Aim for the Top University (ATU) (Chang, 2015).

However, higher education funding is a zero-sum game. The ATU risks creating a vicious cycle in which non-ATU institutions (especially private universities) and their students are increasingly marginalized. As a result, the MOE realized that it should rethink the ATU and focus on higher education as a whole (Tang, 2019). The government therefore launched a further two competition-based funding schemes: the Program for Encouraging Teaching Excellence in Universities, and the Program for Developing Exemplary Universities of Science and Technology. The objective is to provide extra funding for selected universities to improve their teaching quality and applied studies. These special funding schemes have formulated a role differentiation policy that has re-stratified the higher education sector in Taiwan.

Higher education in Taiwan was previously shaped by extensive government legislation and numerous regulations. From the mid-1980s, the government's authoritarian control of these institutions began to loosen, and universities were given decision-making powers on matters related to teaching, research, and learning. Prior to 1995, public universities were financed entirely by the government, and universities had scant discretion over allocating internal resources. Public universities had no incentive to attract sources of income in addition to government funding, because all revenue, including tuition fees, gifts, donations, and income from the sale of services, had to be returned to the Treasury at the end of each academic year. Criticism of the inefficient use of resources coupled with increasing constraints on government funds available to higher education resulted in a new funding scheme. This was the 1996 National University Development Fund, which was intended to enhance institutional autonomy and flexibility in mobilizing resources (Chang, Nyeu, & Chang, 2015; Laws and Regulations Database of the Republic of China, 2015). Consequently, public higher education institutions currently raise money from various sources in addition to government funding. Sources include student tuition and miscellaneous fees, income from the extension of education programs, industry collaborations, rental of buildings or facilities, gifts and donations, and income generated from savings and other financial activities.

3.3 The Meaning of Public Goods in Higher Education

UNESCO's 2015 report, Rethinking Education, drew attention to the weakening of the concept of public goods under the alliance of scientism and neoliberalism as the most worrying symptom in the contemporary education system. In this regard, the notion of education being a "common good" reaffirms the collective dimension of education as a shared social endeavor (UNESCO, 2015, p. 78). In broad terms, higher education could be defined as a private, public, or common good. At first glance, higher education would appear to be mainly a private good and cannot be viewed as a common good. While higher education has been funded directly by the state for a long time, it is usually seen as contributing to public goods, such as reducing inequality and increasing social mobility. In considering Marginson's (2007, 2011) discussion on higher education, we may accept that it is intrinsically neither a private nor a public good, nor a common good. "It is potentially rivalrous or non-rivalrous and potentially excludable or non-excludable, which means that, being nested into wider social and cultural settings, higher education as a good is policy sensitive and, consequently, varies by time and place" (Boyadjieva1 & Ilieva-Trichkova, 2019, p. 1051).

"Common goods," "the common good," and "public goods" are concepts widely discussed in philosophy, political science, and economics. They have recently also attracted the attention of scholars in sociology and educational science (Boyadjieva1 & Ilieva-Trichkova, 2019). The philosophical tradition of studying the common good dates to Plato and Aristotle, with the concept of being further developed in the works of numerous philosophers and political theorists including Thomas Aquinas, John Locke, Adam Smith, John Stuart Mill, Jacques Maritain, and John Rawls. Traditionally, the philosophical study of the common good refers to both "the common good" and "a common good" or "common goods" (Boyadjieva1 & Ilieva-Trichkova, 2019). Locatelli's (2018) study suggests that the frameworks of education as a public good and as a common good may be seen as a sort of continuum consistent with the aim of developing democratic political institutions that enable citizens to have a greater voice in the decisions that affect their well-being. Although closely related to the notion of public goods, the idea of common goods has its own specific meaning.

The concept of public goods has played a significant role in shaping what the universities do in an environment of growing uncertainty and demands for greater accountability. In recent years many governments have adopted a national strategy or development plan for higher education and setting out national objectives (Hazelkorn & Gibson, 2018); for example, Ireland, the Netherlands, Hong Kong, Finland, and New Zealand are adopting performance agreements or contracts to better align higher education institutions with national objectives. The meaning of public goods may vary in different systems. Therefore, the various higher education systems demonstrated, from public goods to quasi-public goods, are reasonable. Higher education in Taiwan is not pure public good, as it is selective in its admissions and is fee-charging. It may belong to the category of quasi-public goods as Tian and Liu's (2018) argument. However, policy documents and the law emphasize that higher education in

Taiwan should contribute public goods by virtue of its positive externalities and non-profitability.

Public goods in higher education may face unexpected political intervention. In this case study, we found that Acts related to higher education policy must first be approved by the Legislative Yuan, after which they can be implemented at central or local level. In current political environment, even though the legislators are elected by the citizens, they usually voice their party's interest. Therefore, related reform Acts have often been delayed for political reasons. For example, it is the intention of the MOE to develop part-foreign-owned branch campuses in specific areas based on the idea of free economic zones. This means that the branch campuses do not necessarily have to be located in the current free economic demonstration zones. The newly established branch campuses will also be exempt from governmental regulations. To circumvent the constraints of educational funding, the MOE acted outside existing frameworks and conventional innovation management and announced a required budget for the demonstration zones. This was to promote innovation to increase incentives for university cooperation at home and abroad (Chang, 2015). The funding changes require Legislative Yuan approved, while the Minority Party usually intends to boycott the ruling party's proposal. Even though its implementation belongs to public goods, for political reasons this initiative is still on the party's negotiating table in the Legislative Yuan.

3.4 Shifting Policy Implementation from Neoliberalism to Public Goods

The 2016 presidential election was a turning point for new directions in Taiwanese higher education, but changes in policy could also be attributed to factors in the broader context. For example, the low fertility rate and overexpansion of the higher education sector have resulted in the reduction of the domestic market in higher education and the oversupply of services in Taiwan (Chang & Huang, 2017; Wu, Chang, & Hu, 2019). To solve these problems, the administrations of the Democratic Progressive Party (DPP) (2000–2008) and Kuo Ming Tang (KMT) (2008–2016) considered the internationalization of higher education to enhance global competitiveness and the reputation of universities and to recruit more international students (Chen & Lo, 2013; Ma, 2014). However, the problem was that the nonselected higher education institutions and their students were disadvantaged by the inconsistent allocation of teaching resources.

In view of this, the DPP (President Tsai Ing-Wen) administration (2016–present) launched a new initiative known as the Higher Education Sprout Project (HESP) in 2017. The project highlights egalitarianism as its principal tenet with the aim of securing students' equal rights to education by promoting diversity in the higher education system (MOE, 2017). This ensures that all the higher education institutions can be allocated the necessary resources for prompting quality assurance.

Moreover, the ATU and other government competition-based funding schemes criticized homogenization with respect to the institutions' lack of significant characteristics. The government (including the MOE and the Ministry of Science and Technology [MOST]) allocated NT$17.37 billion for the first year of the HESP. Based on the ambitions of HESP, 65% of this (NT$11.37 billion) was allocated to the first phase of the project, which focused on universities' social responsibility. In addition, 35% (NT$6 billion) was apportioned to the second phase, the aim of which was to enhance the global competitiveness of universities (MOE, 2018). A total of 157 higher education institutions (71 comprehensive universities and 86 technical institutions) are funded by the HESP.

The HESP has two approaches to achieving the concepts of neoliberalism and public goods. The first part focuses on enhancing the overall quality of universities and encouraging the development of institutional diversity so that everyone has an equal right to education. Based on the original design, NT$8.8 billion will be equally allocated to both universities and technical colleges. According to the allocation guidelines, 20% of the funding is based on the size of the institution, while the remaining 80% is based on the quality of the research being undertaken by the institution. This part of HESP has four components (MOE, 2018).

First, universities are encouraged to promote teaching innovation by enhancing learning effectiveness and teaching quality. Students' basic and professional competencies, graduate employability, employer satisfaction, teacher–student ratios, and the use of innovative teaching methods can be considered when measuring universities' performance for funding allocation. Developing learner autonomy and capacity for innovation and creativity and promoting the learning of programming language are highlighted in this component of the project, which should receive a weighting of over 50% of funding to promote teaching quality per campus (MOE, 2018).

The second component is about enhancing the awareness of higher education. This includes financial openness and the promoting of social mobility. In this regard, higher education institutes (HEIs) are encouraged to recruit more students from underprivileged backgrounds and provide them with counseling and financial support. To fund this additional support, a matching fund scheme is introduced to provide incentives for universities. This scheme will attract more donations from the universities' community partners, thereby diversifying their funding sources and strengthening their link with the private sector (MOE, 2018).

Third, universities are required to uphold their social responsibility, called university social responsibility (USR). This component of the project emphasizes strengthening the link between HEIs and local communities. In this regard, universities are requested to make contributions in various areas, namely the economy, education, ecological conservation, democratic development, long-term care, culture, and the urban–rural development of local communities.

The fourth component is to develop the unique characteristics of universities. HEIs can thus employ self-established performance indicators to assess quality for promoting diversity in higher education (MOE, 2017, pp. 17–32).

The second approach of the HESP focuses on pursuing an international reputation of excellence for selected universities and research centers. NT$5.3 billion has been

allocated for this phase, with NT$4.0 billion for leading universities and NT$1.3 billion for research centers. In addition, the MOE provides NT$2.57 billion for higher education institutions to implement projects of local concern and to support disadvantaged students. In total, the funding from the MOE is NT$16.67 billion. The MOST provides another NT$0.7 billion to augment the HESP (MOE, 2017).

This part of HESP is called Global Taiwan, the aim of which is to enhance global competitiveness for the selected top universities and research centers. The Global Taiwan project included two subprojects. The first of these identified four universities as leading institutions in pursuing all-round excellence: the National Taiwan University, the National Tsing Hua University, the National Chiao Tung University, and the National Cheng Kung University. The second subproject funds 65 research centers from 24 universities. The funded research centers are expected to establish collaboration with foreign research institutions, researchers, and various local industry sectors to enhance their research capacities. In addition, they must strive to attract and nurture research professionals (MOE, 2017).

Compared with previous policy initiatives, the most significant change brought about by HESP is the transporting of USR from campuses to other sectors and communities. The goals of USR are to strengthen university–industry collaboration, foster cooperation among universities and senior high schools, involve ministries and local governments in university-led projects, and nurture talent required by local economies. In broad terms, HESP aims to improve the quality of all HEIs and balance institutional excellence with supporting disadvantaged students. Even though enhancing international competition has become a major focus of Global Taiwan, the selected leading universities are also expected to take responsibility for local research at institutional level. According to the design of the HESP, higher education in Taiwan can be seen to be serving the public good and is funded directly by the state in the implementation of the new policy. Over the past decade, higher education policy has shifted from neoliberalism to the pursuit of public goods.

3.5 Future Challenges in Higher Education

Taiwan's HEIs are divided into two tracks: one for academic orientation, and the other for occupational training. The institutes comprise four-year colleges, universities, institutes of technology, and two- to five-year junior colleges (MOE, 2015). From the social perspective, these institutes are designed to receive equal weighting for the purpose of enhancing students' learning. Although higher education is now seen to be central in the global competition for knowledge, innovation, and human capital, HEIs under government control have shown little intention of relating to the markets (Marginson, 2016; Trow, 1973, 2000). Facing the challenges of global competition and local needs, higher education in Taiwan has moved to a new stage.

According to the latest White Paper for Talent Cultivation (MOE, 2013), Taiwan has an aging population and a declining birth rate, compared to the time before the higher education expansion of the mid-1990s. Related issues now confront the

higher education system—for example, a less friendly environment for learning and instruction, due to the market-driven educational policies and the HEI environment (Chou and Wang, 2012; MOE, 2013). Chou (2017) notes that in the past few decades, Taiwan has responded to the worldwide trend of neoliberalism and globalization through a process of political and social restructuring. Simultaneously, HEIs have undergone a transformation by prioritizing accountability. However, these strategies do not offer an immediate solution to the issue of declining enrollment. In the first part of the HESP, promoting high-quality and innovative teaching in higher education are emphasized, and developing local linkages and nurturing talent are also considered as key goals. The focus of the HESP on the basic needs in the current higher education institutions may well be ineffective in solving the emerging crisis in the system.

When considering the funding allocation, the HESP is still too focused on academic excellence. The institutions focusing on the academic path are allocated 35% of the HESP's total funding, which means that just four institutions receive 35% of the HESP's total funding for the next five years. What might change after implementing the HESP? This study found that competition driven by neoliberalism still exists in HESP. For example, while the public goods are part of specific institutional projects like USR, desired changes are still limited by budget constraints. The basic funding for USR is also allocated according to competitive proposals. Excluding the top four universities, current HEIs funded by the HESP are focused on teaching and learning, and supporting local communities. In addition, these universities are also encouraged to promote the internationalization of teaching and learning by establishing student and faculty exchange programs. While the Taiwanese government encourages the retention of internationalization practices in higher education, these strategies seem to receive too much weighting in HESP's funding scheme. According to the regression analysis, the institutional articles publication in Scopus have made a significant difference in the funding scheme. The number of faculties is also likely to be the key component in the funding scheme, while it has become a negative factor in the regression model (see Table 3.1).

Based on the funding scheme, the HESP has tended to focus only on academic performance. The size of the institution is not significant in the funding scheme. The MOE has encouraged all the HEIs to prepare innovative long-term strategic plans, while the official guideline might become a new constraint under the current funding scheme. The HESP is likely to mislead the HEIs for their long-term development in the future. Moreover, the academic performance of the selected top four universities, in terms of academic articles published in Scopus, declined between 2016 and 2018 (see Table 3.2). Based on the finding, the system might reflect a new crisis—the lack of both ambition for internationalization and leading quality teaching and learning in HESP.

It is difficult to find any specific institution that has allocated over 20% of its budget for enhancing their institutional HESP. This phenomenon reflects the fact that HEIs are over-dependent on government funding, which might cost them their autonomy in the long run. The HESP is mid-way in its five-year plan, so there is still time to reshape its implementation.

Table 3.1 Testing funding in HESP with regression models

Model 1: dependent variable = Funding (unit: NT$10000)[a] (funds received by each institute)								
Model		Unstandardized		Standardized	*t*	*p*	Multi-collinearity	
		B	Std. error	*Beta*			Tolerance	VIF
1	(Constant)	1573.849	691.404		2.276	0.025		
	Scopus[c]	1.422	0.041	.955	35.010	0.000	1.000	1.000
Model 2: dependent variable = Funding_per_student[b] (received funding divided by undergraduate students on a campus basis)								
1	(Constant)	6673.080	907.437		7.354	0.000		
	Scopus[c]	0.621	0.053	0.732	11.658	0.000	1.000	1.000
2	(Constant)	12729.642	1662.930		7.655	0.000		
	Scopus[c]	0.973	0.097	1.145	10.051	0.000	0.265	3.770
	Full-time faculty[d]	−24.879	5.875	−0.483	−4.235	0.000	0.265	3.770

Note a. "Funding (unit: NT$10000)" refers to the funds for 157 institutions. The total amount is about NT$15.34 billion (excluding the funding for research centers and the funding supported by MOST) in HESP

b. "Funding_per_student" refers to the funds for each institution according to the number of undergraduate students. The calculation considers the value of funds received by each institution divided by its undergraduate students

c. Scopus = total articles collected from Scopus database (from 2011 to August 5, 2019) for each HEI

d. Full-time faculty in terms of the faculty hired in the year and excluding part-time faculty

Table 3.2 Number of research articles in Scopus for selected top universities

Universities/year	2016	2017	2018	Declining (2016–2018)
National Taiwan University	6314	6272	6246	68
National Tsing Hua University	2369	2343	2293	76
National Chiao Tung University	2408	2344	2307	101
National Cheng Kung University	3109	3097	2928	181
Total	14,200	14,056	13,774	426

Source Scopus data bank. (2019). *Affiliation search.* Retrieved from https://www-scopus-com.ezproxy.lib.tku.edu.tw/search/form.uri?display=basic#affiliation

3.6 Conclusion

Previous studies have argued that government or business has no trust in the academic community's ability to control funding and the mechanism of accountability (Marginson, 2016; Trow, 1996). This phenomenon is reflected in higher education in Taiwan, which has been governed by large volumes of legislation and numerous regulations. Under this system, HEIs under government control have shown little intention of relating to the markets (Marginson, 2016).

When Taiwanese higher education moved into the age of global competition, the question of how to incorporate public goods in neoliberal times needed to be addressed. The concept of public goods may play a significant role in reshaping what the universities do in an environment of growing uncertainty and demands for greater accountability. This study found that the target of the government-initiated HESP was the delivery of quality education to all, and that excellence in HEIs should be balanced against supporting disadvantaged students. According to the design of HESP, higher education in Taiwan is expected to serve the public goods and is funded directly by the state. In terms of the allocation of funds, this study found that the HESP is still too focused on academic excellence. The Taiwanese government encourages higher education to retain internationalization practices, but these strategies seem to be too heavily weighted in the HESP's current funding scheme.

Based on these findings, the higher education system may be facing a new crisis—a lack of ambition for internationalization, and a lack of superior quality teaching and learning under the HESP. The selected leading universities have received more resources, but they are producing fewer international publications. The current funding scheme did not adequately reflect institutional needs, this might emerge as an issue needing attention. Certainly, most of the resources for HEIs have been based on academic performance. To address the imbalance inherent in the HESP, this study provides the following suggestions for higher education institutions:

First, because higher institutions are facing an uncertain future, it is necessary that they reshape individual projects and promote institutional characteristics for substantive development.

Second, institutional budgets need to be reallocated to institutions to reduce over-dependency on the HESP's funding scheme.

Third, most importantly academic excellence needs balancing against quality teaching. Institutions should prioritize the development of strategies for innovative and high-quality teaching.

Fourth, the five-year period allocated to the HESP is likely to too late for reviewing the emerging overexpansion crisis affecting the less competitive institutions. These institutions have an immediate crisis: the issue of their survival needs to be addressed with alternative strategies to those of the HESP.

Fifth, higher education institutions need to attract resources from social and business enterprises to enhance their long-term development plans under budgetary constraints.

Finally, evidence-based policy and practice are a continuous process requiring interconnected sources. Policymakers need to hold ongoing discussions with different partners to overcome gaps that might cause dysfunctionality in the higher education setting.

References

AERA. (2016). *Research and the public good statement*. Retrieved from http://www.aera.net/Education-Research/Research-and-the-Public-Good.

Australian Association for Research in Education (AARE). (2016). *Submission to the productivity commission inquiry into the National Education Evidence base.* Retrieved from http://www.pc.gov.au/_data/assets/pdf_file/008/199574/sub022-education-evidence.pdf.

Bottrell, D., & Manathunga, C. (2019). Shedding light on the cracks in neoliberal universities. In D. Bottrell & C. Manathunga (Eds.), *Resisting neoliberalism in higher education* (Vol. I, pp. 1–33). Cham, Switzerland: Palgrave Macmillan.

Boyadjieva1, P., & Ilieva-Trichkova, P. (2019). From conceptualization to measurement of higher education as a common good: Challenges and possibilities. *Higher Education, 77*(6), 1047–1063. https://doi.org/10.1007/s10734-018-0319-1.

British Educational Research Association (BERA). (2016). *Mission statement*. Retrieved from http://www.bera.ac.uk/.

Chan, S.-J., Yang, C.-Y., & Liu, H.-H. (2018). Taiwanese struggle in university governance reforms: The case of incorporation. In J. C. Shin (Ed.), *Higher education governance in East Asia: Transformation under neoliberalism* (pp. 73–88). Singapore: Springer Nature.

Chang, D.-F. (2015). Implementing internationalization policy in higher education explained by regulatory control in neoliberal times. *Asia Pacific Education Review, 16*(4), 603–612.

Chang, D.-F., & Huang, Y.-L. (2017). Detecting the effect of policy intervention for oversupply higher education system. *ICIC Express Letters Part B: Applications, 8*(11), 1489–1495.

Chang, D.-F., Nyeu, F.-Y., & Chang, H.-C. (2015). Balancing quality and quantity to build research universities in Taiwan. *Higher Education, 70*(2), 251–263.

Chang, D., Wu, C. T., Ching, G. S., & Tang, C. W. (2009). An evaluation of the dynamics of the plan to develop first-class universities and top-level research centers in Taiwan. *Asia Pacific Education Review, 10*(1), 47–57.

Chen, D. I.-R., & Lo, W. Y.-W. (2013). Internationalization or commodification? A case study of internationalization practices in Taiwan's higher education. *Asia Pacific Education Review, 14*(1), 33–41.

Chiang, L. L.-C. (2018). How a country-old family-like university responds to the neoliberal agenda: The case of National University of Tainan. In J. C. Shin (Ed.), *Higher education governance in East Asia: Transformation under neoliberalism* (pp. 179–199). Singapore: Springer Nature.

Chou, C. P. (2017). *Taiwan's colleges and universities.* Washington, DC: Brookings. Retrieved from https://www.brookings.edu/opinions/education-in-taiwan-taiwans-colleges-and-universities/.

Chou, C. P., & Wang, L. T. (2012). Who benefits from the popularization of higher education in Taiwan? *Chinese Education and Society, 45*(5–6), 8–20.

Eryaman, M. Y., & Schneider, B. (2017). *Evidence and public good in education policy, research and practice.* Cham, Switzerland: Springer.

Ferlie, E., Musselin, C., & Andresani, G. (2008). The steering of higher education systems: A public management perspective. *Higher Education, 56,* 325–348.

Hazelkorn, E., & Gibson, A. (2018). Public goods and public policy: What is public good, and who and what decides? *Higher Education.* https://doi.org/10.1007/s10734-018-0341-3.

Hou, A. Y.-C. (2012). Impact of excellence programs on Taiwan higher education in terms of quality assurance and academic excellence, examining the conflicting role of Taiwan's accrediting agencies. *Asia Pacific Education Review, 13,* 77–88.

Hsieh, C.-C. (2018). Institutional change in the iron cage: A case study in Taiwan. In J. C. Shin (Ed.), *Higher education governance in East Asia: Transformation under neoliberalism* (pp. 161–177). Singapore: Springer Nature.

Laws and Regulations Database of the Republic of China. (2015). *National University Endowment Fund Establishment Act*. Retrieved from https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=H0030025.

Lo, Y. W., & Weng, F. Y. (2005). Taiwan's responses to globalization: Internationalization of higher education. In K. H. Mok & R. James (Eds.), *Globalization and higher education in East Asia.* Singapore: Marshall Cavendish Academic.

Locatelli, R. (2018). *Education as a public and common good: Reframing the governance of education in a changing context* (UNESCO Education Research and Foresight Working Papers No. 22). http://unesdoc.unesco.org/images/0026/002616/261614E.pdf.

Lu, M. L. (2004). *The blueprint and competitiveness of Taiwan's higher education.* Paper presented at the Cross Strait Seminar on Review and Prospect of the Policy of University Excellence, Taipei City.

Ma, A.-H. S. (2014). The development of international student recruitment policies in Taiwan: A 60-year trajectory. *Journal of Studies in International Education, 18*(2), 120–140.

Marginson, S. (2007). The public/private divide in higher education: A global revision. *Higher Education, 53,* 307–333.

Marginson, S. (2011). Higher education and public good. *Higher Education Quarterly, 65*(4), 411–433.

Marginson, S. (2016). *The dream is over: The crisis of Clark Kerr's California idea of higher education.* Oakland, CA: University of California Press.

MOE. (2006). *Plan to develop first-class universities and top-level research centers.* Retrieved from http://english.MoE.gov.tw/ct.asp?xItem=7131&ctNode=505&mp=1.

MOE. (2013). *White paper on national cultivation of talents.* Retrieved from http://ws.moe.edu.tw/001/Upload/3/RelFile/6315/6919/MOEwhitepaperfortalentscultivation.pdf.

MOE. (2015). *Educational statistics 2015, The Republic of China.* Taipei: Author. Retrieved from https://stats.moe.gov.tw/files/ebook/Education_Statistics/104/104edu_EXCEL.htm.

MOE. (2017). *Higher education sprout project (final version).* Taipei: Ministry of Education.

MOE. (2018). *The review report of higher education sprout project*. Retrieved from https://www.edu.tw/News_Content.aspx?n=9E7AC85F1954DDA8&s=8365C4C9ED53126D.

Olssen, M., & Peters, M. A. (2005). Neoliberalism, higher education and the knowledge economy: From the free market to knowledge capitalism. *Journal of Education Policy, 20*(3), 313–345.

Scopus data bank. (2019). *Affiliation search.* Retrieved from https://www-scopus-com.ezproxy.lib.tku.edu.tw/search/form.uri?display=basic#affiliation.

Song, M.-M., & Tai, H.-H. (2007). Taiwan's responses to globalization: Internationalization and questing for world class. *Asia Pacific Journal of Education, 27*(3), 323–340. https://doi.org/10.1080/02188790701594067.

Tang, C. W. (2019). Creating a picture of the world class university in Taiwan: A Foucauldian analysis. *Asia Pacific Education Review*. https://doi.org/10.1007/s12564-019-09581-5.

Tian, L., & Liu, N. C. (2018). Rethinking higher education in China as a common good. *Higher Education*. https://doi.org/10.1007/s10734-018-0295-5.

Trow, M. (1973). Problems in the transition from elite to mass higher education. *ERIC* (ED 091 983). Retrieved from http://files.eric.ed.gov/fulltext/ED091983.pdf.

Trow, M. (1996). Trust, markets and accountability in higher education: A comparative perspective. *Higher Education Policy, 9*(4), 309–324.

Trow, M. (2000). *From mass higher education to universal access: The American advantage, research and occasional paper CSHE 1.00.* Berkeley, CA: Center for Studies in Higher Education, University of California, Berkeley.

UNESCO. (2015). *Rethinking education: Towards a global common good?* Paris: UNESCO.

Wu, S.-J., Chang, D.-F., & Hu, H. (2019). Detecting the issue of higher education over-expanded under declining enrollment times. *Higher Education Policy*. https://doi.org/10.1057/s41307-019-00163-z.

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