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2019

Liu, H. (2019). Global talent management and higher education governance : the Singapore experience in a comparative perspective. Y. Liu (Eds.), Research Handbook of International Talent Management (pp. 339-363). Edward Elgar Publishing.

<https://hdl.handle.net/10356/153075>

<https://hdl.handle.net/10356/153075>

<https://doi.org/10.4337/9781786437105.00026>

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Global Talent Management and Higher Education Governance: The Singapore Experience in a Comparative Perspective

Hong Liu*

Abstract

By using the Singapore case study, this chapter is concerned with the roles of global talent management in the higher education and research sectors and how it has contributed to a nation's socio-economic development. The first part of this chapter reviews the existing literature on global talent management and its limitations in understanding the non-Western experiences. The second part examines the Singapore government's policy on higher education and on how the twin focuses on talent development—including both domestic and global talent management—and economic development have been skilfully incorporated in the country's transformations since its independence in 1965. It gives special attention to Lee Kuan Yew's views on the critical role of talent in the political and economic developments and the effective implementation of talent strategies. The third part of this chapter zooms onto the development of Nanyang Technological University in Singapore over the past 27 years since its founding, especially over the past decade, to demonstrate the importance of (global) talent management behind its dynamic rise in the international higher education and research scene. The concluding section considers the Singapore's experience in a comparative perspective and offers some preliminary suggestions for future research directions with respect to global talent management and higher education governance.

Keywords

Global talent management, Higher education, Singapore, Dynamic governance, Nanyang Technological University

*"Superior talent will be tomorrow's prime source of competitive advantage."*¹

*"If we do not attract, welcome and make foreign talent feel comfortable in Singapore, we will not be a global city and if we are not a global city, it doesn't count for much. The days of being a regional city, that's over."*²

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¹ Chambers et al (1998).

² Lee Kuan Yew (2003).

Since the Mckinsey report first coined the term "war for talent" in 1998, the intensity and scale of this smokeless war has been significantly increased over the past three decades, thanks in no small part to the accelerated pace of globalization and international migration (with 242 million international migrants in the world as of 2016) as well as technological advancement. While there are complex factors contributing to the outcomes of the war for talent, public policy on higher education and research as well as governance of globally mobile talent play a pivotal role.

By placing our case study of Singapore in the framework of global talent management, this chapter is concerned with the role of talent strategy in higher education governance, which in turn contributes significantly to a nation's economic growth and competitiveness. The first part of this chapter reviews existing literature on (global) talent management and highlights the importance of bringing in the public sector and non-Western experiences (especially those of the East Asian Developmental States) in the discussions of formulations and implementation of global talent management which has so far been focused on the private corporations originating from the West. The second section of this chapter examines Singapore's trajectory of developing human capital and higher education for the purpose of economic growth over the past half a century, since the country's independence in 1965. The twin focuses of the talent strategy—centering on domestic core and supplementing it with global talent—has served as a key engine of economic growth and technological innovation. It will give special attention to the views and policy formulation on talent development by Lee Kuan Yew, the island country's founding father, which laid the intellectual foundation of global talent management at work in today's Singapore. This section

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also examines two key initiatives in the early 21st century that have had a continuing impact on higher education governance: the Global Schoolhouse project launched in 2002 and the autonomous move of public universities in 2006. It was against the backdrop of the economic transformation and these policy reformulations that prompted the dynamic rise of the National University of Singapore (NUS) and Nanyang Technological University (NTU) in the global higher education and research scene. The third part of this chapter discusses the attraction, nurturing, management and appraisals of faculty members at NTU as a case study to unveil the operation and implementation of talent management strategy on the ground. The concluding segment of the chapter considers the Singapore case in a comparative perspective and offers some preliminary suggestions on future research directions with respect to global talent management in the ever intensified war for talent.

From "Brain Circulation" to Global "War for Talent"

The literature on global talent management is too numerous to be even succinctly summarized here (see for example Tarique and Schuler 2010; Scullion, Collings and Caligiuri 2010; Collings 2014; McDonnell et al 2017; Keller and Meaney 2017). McDonnell et al (2017) suggested that the majority of scholarship focuses on "the management of talent and its implication for the identification, management, development and retention of talented individuals and organisational outcomes." They pointed out that: "If the field is to advance to maturity there is an acute need for the rather fragmented nature of the literature to be brought closer together towards a more common paradigm."

This chapter highlights three key issues in the existing literature: the growing recognition of the importance of global talent management; the significance of "brain circulation" in facilitating global war for talent, especially in the higher education sector; and the indispensability of developing theoretical frameworks incorporating key stakeholders in the global talent management process such as government policies, embedded economic growth and innovation imperatives, and talent management implementation. This brief review of literature will then serve as the framework for our case studies of Singapore and Nanyang Technological University.

As a sub-field of talent management, which developed systematically only after the late 1990s and "faces the challenge of transitioning from a 'growing' to a 'mature' field of study" (Gallardo-Gallardo, et al 2015), global talent management has received increasing attention over the past decade and certain consensus has emerged. For example, while there are differing definitions of global talent management, it has generally been agreed that the following definition provides a starting point for analysing both the theoretical and practical dimensions of the GTM.

Global talent management includes all organizational activities for the purpose of attracting, selecting, developing, and retaining the best employees in the most strategic roles (those roles necessary to achieve organizational strategic priorities) on a global scale. Global talent management takes into account the differences in both organizations' global strategic priorities as well as the differences across national contexts for how talent should be managed in the countries where they operate (Scullion, Collings, and Caligiuri 2010).

As Scullion, Collings, and Caligiuri suggested, GTM is a relatively new multi-disciplinary field of enquiry "as a key strategic issue for multinational corporations (MNCs)" and that its main focus has been on "a key group of core employees, rather than the multinational's entire human capital pool." While some scholars call it

international talent management, the essence remains the same, as they give significant attention to the interplay between internal and external dimensions of talent management that used to be confined within a particular geographical space, or the nation-state framework. As Eva Gallardo-Gallardo et al (2015) point out:

International talent management is about understanding, researching, applying, and revising all HRM activities in their internal and external contexts as they impact the processes of managing human resources in organizations throughout the global environment to enhance the experience of multiple stakeholders. In short, the goal of IHRM is to help multinational companies (MNCs) be successful globally.

The growing phenomenon of "brain circulation", facilitated significantly by the rapid pace of internationalization of higher education (Wildavsky 2010; Kuzhabekova, Hendel, and Chapman 2015) has fuelled the global war for talent. The number of students who choose to study at a university overseas has grown dramatically in recent decades, nearly quadrupling from 1.3 million in 1990 to 5 million in 2014 (University of Oxford 2017). As Saxenian (2005) has documented, "heightened mobility of highly skilled people" has become a main driving force in technological development and globalization. Aided by the lowered transaction costs associated with digitization, argues she, Chinese and Indian engineers in the USA are "transferring technical and institutional know-how between distant regional economies faster and more flexibly than most large corporations." As a major departure of the conventional view that sees the migration of talented youth from the developing to the advanced industrialized world as "exacerbated international inequality by enriching already wealthy economies at the expense of their poor counterparts," Saxenian and other scholars (e.g., Liu 2010; Singh and Krishna 2015; Liu and van Dongen 2016; Tung 2016) have also demonstrated the global trend of moving away from seeing "brain drain" and "brain

gain" as a zero-sum game to conceptualizing global mobility of talent as a positive force of "brain circulation."

One of the direct consequences of "brian circulation" has been the intensified quest for talent on the global scale and relevant policies formulated by some forward-looking governments. As Beechler and Woodward (2009) have pointed out, while the old approaches to "talent war" had been driven by "a scarcity state of mind and action," the recent years have seen the emergence of a more evolutionary paradigm where 'talent solutions' are characterized by "a global mindset for people and organizations; evidence-based management; learning agility; broader and deeper approaches to talent management and professional development that encompass not only "top talent" but a wider range of employees, as well as the capacity to leverage diversity."

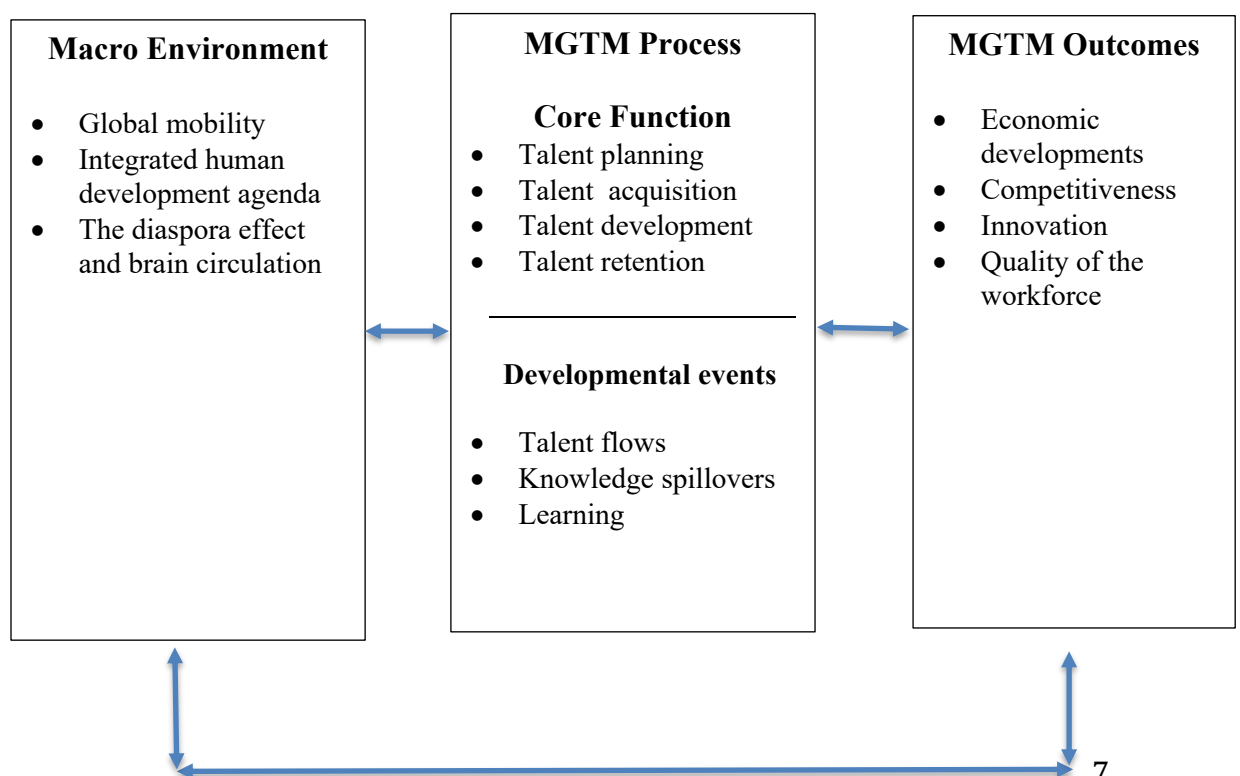
Although the past two decades have seen the mushrooming of literature on (global) talent management, scholars have also lamented that "current literature on talent management and performance indicators rarely pays attention to the implementation process, power processes and context" (Van den Brink, Fruytier, and Thunnissen 2013). It has also been pointed out that (global) talent management literature lacks "a clearly specified theoretical foundation to frame their empirical efforts" (McDonnell et al 2017). In the meantime, there is a need to go beyond the predominant focus on global talent management practices of the transnational corporations, many of which originate from the West, and to direct more attention to the knowledge sector such as higher education which has been characterized by global talent mobility and the ascendance of universities in the developing world (University of Oxford 2017).

It is therefore important to not only guide the empirical research on (global) talent management with carefully developed theoretical frameworks, but also to

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examine its implementation process under different socio-political environments. This chapter's analysis of the Singapore experience of global talent management in the higher education sector is based upon the model developed by Khilji, Tarique, and Schuler (2015). Arguing that no institutions, be domestic or international, can be exempt from social, economic and political influences of a particular nation and the global environment, they proposed the incorporation of macro view of GTM. This framework incorporates four trends that have shaped GTM's process and outcome, including Global Mobility, Integrated Human Development Agenda, the Diaspora Effect and Brain Circulation, and Talent Flow and Learning. Highlighting the increasing participation of governmental and nongovernmental organizations in attracting and developing talent, they argue that incorporating a macro view of GTM would expand "the scope of GTM (beyond individuals and organizations) to specifically address issues related to global labor mobility, and knowledge flow" (see figure 1).

**Figure 1: Macro Global Talent Management (MGTM):
A Conceptual Framework**



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Source: Khilji, Tarique, and Schuler (2015).

In short, since the 1998 Mckinsey Report, the importance of talent management and war for talent has garnered growing attentions from not only the private sector but also the governments. The accelerated pace of globalization including talent mobility have not only facilitated the dynamic pattern of "brain circulation" but also transformed the war for talent to beyond the nation-state boundaries. To better understand the dynamics, characteristics, and impact of global talent management, we need to place it within a macro framework that incorporates both domestic and international political economy and a changing global environment. We have also demonstrated the importance of linking domestic and global talent management as they are under the same ecosystem despite some different imperatives (for example, domestic talent have the right to vote, thus deciding the country's political future). The following pages will be devoted to a comparative case study on Singapore's experience of global talent management within such an integrated ecosystem.

Singapore's Evolving Talent Strategy and Higher Education Landscape

As a small island nation, Singapore does not have any natural resources and a sizeable domestic market. When it was thrown out from Malaysia in 1965, there were widespread doubts on its very survival as an independent country. Yet, against all the odds, Singapore has managed to achieve enviable economic prosperity and socio-political stability. Alongside with three other East Asian economies (South Korea, Taiwan and Hong Kong), Singapore was one of the "Four Little Tigers" which attracted the World Bank's praise for the "East Asian Miracle" in the mid-1980s. By the end of

the 20th century, the country has moved from a developing to a developed country, with a per capita GDP of \$55,000 in 2017 (a substantial increase from \$516 in 1965), which is ranked among top 10 globally, well ahead of many developed nations including Britain, its former metropolitan state.

Numerous interpretations have been advanced in explaining the "Singapore Miracle" (see for example, Vogel 1991; Huff 1997; Lee Kuan Yew 2012). This chapter argues that dynamic governance—defined as a proactive approach that emphasizes learning, foresight, adaptability to policy-making and implementation by actively anticipating future developments, gathering feedback, evaluating performance, and learning from others (Neo and Chen 2007)—plays a crucial role in Singapore's post-independence trajectory. The formulation and implementation of (global) talent strategy in the higher education sector for the nation's economic growth is a key component of the dynamic governance which lifts the country from a third world to the first world country.

As has been demonstrated elsewhere (Liu and Wang 2015), Singapore's talent strategy has been characterized by four major features: it has been formulated as a national strategy receiving support from top-level political leadership, systemic incorporation of agendas in economic growth and educational development, institutionalization of government mechanisms in attracting and nurturing talent, and effective implementation of the (global) talent strategy. This section will focus on the first three characteristics while the implementation aspect will be demonstrated in the next section through a case study of Nanyang Technological University.

Singapore's global talent strategy has been a part and parcel of the country's overall talent strategy which has in turn been shaped by socio-political and economic transition since its independence in 1965. Talent strategy of Singapore's tertiary institutions goes

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hand-in-hand with similar plans adopted by the country as a whole. They are inseparable. Thus, the former's characteristics and importance have already been established from the start. Singapore's talent strategy, as a part of the national strategy, is driven directly by the country's highest political leadership. Since the nation-building years began in 1965, Singapore has undergone three generations of political leadership. They have developed the country's talent strategy based on the needs of society and economic development during their respective terms in office.

During Lee Kuan Yew's era (1965-1990), the emphasis was on recruiting political talent, especially in nurturing the able ones, and developing tertiary education to support economic growth. Goh Chok Tong's administration (1990-2004) coincided with the crucial period of Singapore's rapid economic transition from manufacturing-based to knowledge-driven economy. Therefore, he emphasised on attracting global talent. Though the political climate has been stable during the Lee Hsien Loong years (2004-present), the period however saw Singapore weathering several financial crises which put pressure on the economy resulting in a job crunch. Then there were changes which took place in mainstream society and negative reactions from citizens on the influx of foreigners (Liu 2014; Ho and Foo 2017). As a result, the country's talent strategy turned somewhat inward, first to improve the quality of its citizens, and then encourage the return of local talents from overseas. The country's foreign talent policy has to be tweaked with an aim to to reduce the conflicts between the locals and new immigrants so as to achieve social harmony.

(Global) Talent Strategy as a National Policy Priority

As the Founding Father of the Republic of Singapore who served as the Prime Minister from 1965 to 1990 and continued to play an instrumental role in policy-making

as Senior Minister and Minister Mentor till 2011, Lee Kuan Yew's ideas about talent had a significant impact the formulation and implementation of the country's talent strategy. As has been demonstrated elsewhere (Liu and Zhang 2017), there were three core elements in his thoughts on talent: developing higher education to nurture talent, selecting capable political leaders to run the government, and attracting foreign talent to support the nation's economic development and enhance its competitiveness.

In Lee's view, tertiary education was not only conducive in developing talent, but also indispensable for economic development. Lee Kuan Yew emphasised in 1962, prior to the country's independence, what needed to be done (Lee 2011, 435-37):

- (i) To establish universities to nurture Singaporean and Malaysian talent so as to achieve the goal of becoming an industrialised society;
- (ii) to expand the University of Singapore and Nanyang University and to coordinate with the development plan for Jurong Industrial Estate; and
- (iii) to draw up appropriate policies to expand education institutions and, over the next 12 years, to attract and groom young people who would help build an industrialised society.

It is obvious that from the very beginning that higher education had been intrinsically linked to the nation's economic development agendas. Lee Kuan Yew said, "We need people with more than the ability to turn a company around. We need people who can empathise with others' emotions, feelings and aspirations; to mobilise the people to strive with you to achieve the desired life." He also constantly reiterated the importance of recruitment of talent for the ruling People's Action Party (Lee 2011, 477-79).

At a PAP cadre meeting in 1984, Lee talked about the relationship between politics and talent, stressing the fact that leaders did not come about by chance. He explained: "Once the PAP stops recruiting talent, it will become weak and the talented will either go somewhere else or pose a challenge to PAP's political power". During a parliamentary debate on the revision of salaries for public servants in 1989, Lee gave reasons for ministerial pay increases in a statement as follows: "It is important to maintain a stable government, set good policies and ensure economic growth. But they require the government to attract at least 30 of the top 100 students in each cohort every year to join the civil service. They include jobs in the administrative service, public hospitals, engineering, accounting or the legal departments. Otherwise, the government will not be able to provide conditions for growth in the private sector" (cited in Liu and Zhang 2017).

While developing local talent serves as the core of Singapore's talent strategy, the country faces declining fertility rate and a growing ageing population. In 2010, the fertility rate was just 1.15, far below the population replacement rate of 2.1 (Sun 2012). For a country with only a few million people, it was not sufficient to rely on home-grown talent. Lee Kuan Yew once pointed out that the whole society depended on about 300 people (top civil servants and political elites) who bore the burden of carrying out government policies. If all the 300 were to crash in one jumbo jet, then Singapore would disintegrate. As early as the 1980s, he already realised the importance of attracting talent from around the world. Speaking to the National Trades Union Congress on "The Future", Lee pointed out, "Without these foreign-born talents who take on responsibilities at ministries and statutory boards, Singapore would never have been able to achieve what it has today." In his 1989 National Day Rally Speech, Lee said that the government's policy of attracting of foreign immigrants was "for the sake of

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Singapore's economy, society and politics, and would not disadvantage any Singaporean climbing the social ladder." In his capacity as Minister Mentor, Lee Kuan Yew emphasized in 2009 that if Singapore were not able to reach the 2.1 population replacement rate, it would be in trouble. He said that Singapore needed a steady flow of able, young and energetic immigrants from China, India and Southeast Asia who would help maintain the vibrancy and vitality of Singapore society (cited from Liu and Zhang 2017).

As mentioned earlier, global talent management is conditioned by the country's political economy. The fact that Singapore has embraced multi-cultural and multi-lingual inclusive society has significantly enhanced its attractiveness for global talent. As Lee Kuan Yew declared in his Independence address on August 9, 1965, "We are going to be a multiracial nation in Singapore.... This is not a Malay nation; this is not a Chinese nation; this is not an Indian nation. Everyone will have his place, equal: language, culture, religion." The economic transition further mandated the essential role of talent strategy. At the end of the twentieth century, Singapore's economy underwent significant structural changes: labour-intensive manufacturing industries were no longer the stars of economic growth, and high value-added and high-tech industries became the driving force behind the increasingly regionalised and globalised economy. From 1999, the government committed itself to developing a knowledge-based economy and encouraging manufacturing and service industries to complement each other. Looking back, Lee Kuan Yew's ideas on both domestic and global talent development have greatly influenced the government's approach and strategy over the past five decades.

Goh Chok Tong became Prime Minister in 1990 when he faced challenges of globalization as well as a low fertility rate at home. The years after the 1990s saw a

major shift of focus on developing domestic talent to a dual focus on putting priority on domestic talent while attracting global talent so as to enhance the nation's economic development. He told the nation in 1999: "It is talent that counts. We can be neither a first-world economy nor a world-class home without talent. We have to supplement our talent from abroad." In his 2001 National Day Rally speech, Goh Chok Tong spoke of the need to attract the talents, its feasibility and the ways to do so. He believed that foreign talents were important in helping to address the problems of a dwindling population and to transform the economy. It was against this background that Goh had formulated specific global talent strategy by clearly identifying who were needed, as he announced a "Foreign Talent Policy" in his 1997 National Day Rally, in which he stressed that three categories of foreign talent were needed for Singapore. These were: (i) at the top, such as CEOs, scientists, academics and artists; (ii) professionals such as engineers, accountants, IT professionals, teachers and administrators; and (iii) skilled workers such as bus drivers and technicians etc (cited in Liu and Wang 2015).

The foreign talent strategy during the Goh Chok Tong years had a great impact on Singapore society. For one thing, foreign talent, alongside massive scale of immigrants, came in big numbers. According to the 2010 Singapore Census,³ the nonresident population accounted for 25.7 percent of the total population, increasing from 18.7 percent in the previous decade. The percentage of PRs rose from 8.8 percent of the total population in 2000 to 14.3 percent in 2010. The foreign born constituted 34.7 percent of the country's labor force in 2010, up drastically from 28.1 percent in 2000.

³ https://www.singstat.gov.sg/docs/default-source/default-document-library/publications/publications_and_papers/cop2010/census_2010_release1/cop2010sr1.pdf

In 2004, Lee Hsien Loong took over from Goh Chok Tong to become Singapore's third Prime Minister. By then, Singapore's economy had already recovered after a series of restructuring and had entered the first world economy. The population, especially younger citizens born after Singapore's independence, has higher expectations on the government and responsibility. The government has thus placed great emphasis on the importance of education and made significant efforts to raise the quality of education as well as to promote life-long learning. It is the combination of these circumstances and the heightened pace of globalization shaped the key policy initiatives that have had a major impact on (global) talent strategy over the past two decades. These initiatives included the Global Schoolhouse project and the Autonomy of Public Universities.

From Global Schoolhouse to SkillsFuture

As we have shown, Singapore's talent strategy has been intimately and structurally linked to education, which has accounted for nearly 20 per cent of the government expenditure, second only to defence budget. Indeed, the past four decades have witnessed the rapid growth of the educational sector. Between 1980 and 2000, the cohort participation rate (percentage of primary school children in each year who subsequently enrolled successfully at the local universities) increased from 5% to 21%. The enrolment rate of the polytechnic sector increased from 5% to 38% over the same period. The total enrolment rate for the higher education sector, comprised of both universities and polytechnics, was raised from 10% in 1980 to 59% in 2000 (Toh 2012). Here, higher education in Singapore serves three larger purposes: to develop local talent, to attract foreign talent, and to repatriate diasporic talent (Jack Lee 2014).

There is also an important economic dimension in the higher education sector. As a globalizing economy, the Singapore government realized the growing trend of internationalization of education and its potential contributions with respect to economic development and talent strategy. With a global education market valued at approximately US\$2.2 trillion, Singapore's higher education sector was positioned as a major revenue-generating sector of the economy (Ng 2013). As Jessop (2016) has noted, in the context of East Asian Development State, of which Singapore is one of the prominent example, "higher education is increasingly construed as a directly economic factor to be governed in conjunction with other such factors to boost economic competitiveness rather than viewed in terms of its functional differentiation and specialisation within a stable social order. It is judged in terms of its economic efficiency and contributions to national systems of innovation, learning economy, Knowledge-Based Economy."

It was in this context that at the beginning of the 21st century, Singapore attempted to become the "Boston of the East", a global knowledge-based hub associated with innovation, creativity, informed debate, and significant university-industry linkages (Olds 2007; Mok 2008). The government launched the Global Schoolhouse project which rested on three pillars: extend financial support to an identified group of 'world class universities' to establish operations in Singapore; attract 150,000 international students by 2015 to study in both private and state-run education institutions, and re-model all levels of Singaporean education to inculcate the attributes of risk-taking, creativity and entrepreneurialism (Sindu, Ho and Yeoh 2011). In the meantime, the Global Schoolhouse initiative was considered as an important strategy of the nation opening up its territory to the presence of foreign higher education providers and consumers (Lo 2014).

Another key development in the first decade of the 21st century that has had a significant impact on Singapore's (global) talent management in the arena of higher education was local public universities' move toward autonomous governance. There were five public universities at the time: the National University of Singapore (NUS), Nanyang Technological University (NTU), Singapore Management University (SMU), Singapore University of Technology and Design (SUTD), and Singapore Institute of Technology (SIT). In 2005, the Ministry of Education announced that 'as autonomous universities, NUS, NTU and SMU will be given greater flexibility to decide on matters such as their internal governance, budget utilization, tuition fees and admission requirements/these flexibilities given to our universities will enable them to differentiate themselves and pursue their own strategies to bring about the most optimal outcomes for their stake-holders' (cited in Mok 2010). This move represented a major departure from the old practices whereby the Ministry of Education controlled every detail of university governance and aimed at promoting an "entrepreneurial spirit." It has been pointed out that the move toward autonomous universities was management-driven, "with strong University administration has been given more flexibility in running their businesses, more autonomy and discretion is granted to the management in staffing and finance matters" (Mok 2010). While the universities are held accountable for 'Key Performance Indicators', local autonomous universities as national universities must also continue to fulfil their critical roles of training graduate manpower for Singapore's economy (Ng 2013).

The close connections between higher education and economic development—and talent strategy in an indirect way—have also been clearly demonstrated in the launch of the new nation-wide movement of life-long learning, the SkillsFuture initiative since 2015, which aims at upgrading the abilities and skills of the local

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workforce by using public funds and collaborating with education institutions to open courses for students as a platform for life-long learning. The initiative focuses on four main areas: 1) Helping individuals make well-informed choices in education, training and careers; 2) Developing an integrated, high-quality system of education and training that responds to constantly evolving industry needs; 3) Promoting employer recognition and career development based on skills and mastery; and 4) Fostering a culture that supports and celebrates lifelong learning.⁴

Tertiary institutions, like a university, form part of society. Singapore's overall (global) talent strategy, therefore, naturally has a great impact on the tertiary institutions, such as NTU. And their development, from the end of the last century onwards, had been growing in tandem with the transformation of the Singapore economy into a knowledge-based one, and the establishment of the country as an "Education Hub" in Asia.

Institutionalization of Global Talent Management and Public-Private Collaboration

A main characteristic of Singapore's global talent management lies in the effective collaboration between government policies and market mechanisms. The government provides favourable policies and guiding principles but does not do everything. Instead, it makes use of a system of measures to attract talent from all over the world.

The Economic Development Board (EDB) and the Ministry of Manpower jointly set up "Contact Singapore", which can be seen as a national head-hunter, with the aim

⁴ <http://www.mom.gov.sg/employment-practices/skills-training-and-development/skillsfuture>.

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of attracting international talent to Singapore to work, invest and live. It has offices in Asia, including Beijing and Shanghai, as well as Europe and North America, providing a one-stop platform for talented people interested in working, investing or launching new business activities in Singapore. This agency also works with the private sector in Singapore to assist potential investors in Singapore (Liu and Wang 2015).

"Contact Singapore" is not just aiming at attracting foreign talent, it also aims to connecting the country with Singaporeans overseas (who are numbered more than 200,000 and many are highly educated) so as to pave the way for their return home as talent one day. The network of "Contact Singapore" has enabled it to know their whereabouts and career development abroad. This in turn facilitates a quick response should they decide to return home one day.

Attracting and managing international talent requires a whole system of administrative measures to be successful. Singapore's strategy of defining, identifying, rewarding and managing international talent has several unique features. The channels for attracting international talent are both diversified and coordinated. The International Talent Division (now renamed the International Manpower Division) of the Ministry of Manpower is responsible for setting up the parameters of global talent recruitment. It updates an annual Strategic and Skills-in-Demand List in accordance with the needs of the economy. For example, industries for which Singapore requires talent from overseas include banking and finance, pharmaceuticals, chemicals, electronic equipment manufacturing, healthcare, information and communications, interactive digital media, law, shipping and tourism. Foreigners with relevant skills are given priority when they apply for employment passes. The Ministry of Manpower also introduced a free online self-assessment tool to enable potential employers or

employees to find out whether an employment pass application would be likely to be approved.

Having attracted a large number of foreign talents, the Singapore government pays attention to their integration into society. In 2007, a National Population and Talent Division was set up in the Prime Minister's Office with the responsibility for integrating immigrants and enabling them to contribute to Singapore society. The government set aside S\$10 million to establish the Community Integration Fund. In 2009, the National Integration Council was set up jointly by the public and private sectors to open the "doors, hearts and minds" to help new immigrants integrate into society, and promote mutual trust between different sectors of society. The Council focuses on the areas such as raising public knowledge on the importance of a policy for the integration of immigrants, helping new residents to adapt to Singapore's way of living, such as understanding local culture and social norms, and nurturing and deepen the feelings for and sense of belonging for both Singaporeans and the newcomers (Zhou and Liu 2016).

Public Responses to Global Talent Strategy and Policy Adjustments after 2011

Despite the above policy initiatives aiming at integrating foreigners into the local society, the rapid and large-scale influx of immigrants, foreign talent included, has caused many Singaporeans to feel that there were too many differences between themselves and the new immigrants (including those from mainland China), and that the influx of a large number of immigrants has intensified competition for scarce resources (such as jobs, public housing, transport, schools and healthcare). They also doubt the loyalty of these new immigrants (Liu 2014). There was a growing sentiment

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among Singaporeans against the "open-door" policy as reflected in the Global Schoolhouse project, as local university places were lost to international students (Lo 2014). Migration became a hot topic in the May 2011 general election and the August 2011 presidential election. And the general populace's discontents on immigration policy, of which global talent strategy was an integral component, became a main reason for the PAP receiving only 60% of the popular votes in the general election—the lowest since 1965, with the opposition parties getting 40%.

After 2011, the government launched "Singaporeans First" policies, slowing down the pace of immigration and raising the bar for immigrants. It widened the gaps of public benefits between citizens and permanent residents on the one hand, and made greater effort to attract Singaporean talents overseas to return on the other. It also placed great importance on integrating new immigrants into mainstream society. And the Global Schoolhouse initiative has further shifted its focus towards "building industry-relevant manpower capabilities and helping to attract, develop and retain talent". This is a manifestation of an overall change of the country's global talent strategy. As William Lo (2014) pointed out: "Achieving a right balance between global and local has replaced the emphasis on managing globalisation."

On a related matter pertaining to the conflicting logics of globalism and localism, Singapore's foreign talent strategy in the higher education and research sectors is a reflection of a global trend in which the public and private boundaries are blurring with respect to talent management. As has been demonstrated, "universities have been transforming from a collegial system, backed by an ideology that led professors to expect and to enjoy high levels of independence and autonomy, relatively free from any sense of management and accountability, to a managerial model in which management practices are adopted from the private sector" (Van den Brink, Fruytier, Thunnissen

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2013). The overriding dominance of economic development logic behind higher education and global talent strategy may have produced some unintended consequences. It has been reported, for example, that bio-scientists in Singapore felt that their community received too much pressure from funding agencies to generate economic returns. And the differences in corporate cultures between a university in Singapore and its counterpart in the West may lead to doubts on the part of foreign academics regarding whether they should follow an official research agenda just because the financial support is there (Ng 2013; see also Krishna and Sha 2015). On a global and comparative level, the Singapore case also reflects the increasingly complex relationship between academic mobility and knowledge and identity capital and their mutual entanglement as academics move internationally. As Teri Kim (2017) has argued, the contemporary movement of academics takes place within old hierarchies among nation states, but such old hierarchies intersect with new academic stratifications (see also Yonezawa, Horta, Osawa 2016).

It should be noted that while the focus has been shifted from attracting global talent to nurturing local talent, including preparing the local workforce for economic restructuring and the Fourth Industrial Revolution through state-driven programmes such as the SkillsFuture initiative, Singapore has not subscribed to populist policies that have been in place in many industrialized nations. Remarked Prime Minister Lee Hsieng Loong at the 2013 meeting of the Research, Innovation and Enterprise Council, of which he has been the Chairman since it's founding in 2006:

To make further progress, we will need good people, we will need good research programmes, and then we will be able to get good outcomes. The good people [part] is most critical because first you must have the talent. And to sustain a

vibrant research community, it means we have to attract international talent, as well as to nurture local talent. We need to do both.⁵

We can draw a few observations from the proceeding discussions. In the first place, talent strategy has been formulated as the national policy priority since the country's independence in 1965, and this strategy has been implemented with the ultimate agenda of socio-economic development. Second, due to its declining fertility rate and transition to knowledge-based economy, Singapore has also opened its door to embrace highly-skilled immigrants to join its workforce, using global talent strategy to supplement its domestic talent strategy. The integration of the two pronged strategy has contributed significantly to the country's growth and transformation into the first world economy. Third, considered as a main driver for economic growth and innovation, higher education has been instrumental in the overall talent strategy. As one of the most globalized and connected economies in the world, higher education in Singapore has benefitted from talent mobility of international academics over the past two decades. The internal structural and policy adjustments, evidenced by the Global Schoolhouse project and the autonomous move of the public universities in the first decade of the 21st century, has prepared Singapore well for the opportunities brought about by the internationalization of higher education and brain circulation. Finally, global talent strategy is also a public policy not only in that it is a part and parcel of the country's immigration policy (thus impacting upon local socio-economic landscape), but also it garnered mixed reactions from the public. This has led to the change of focus on talent development in Singapore since the watershed 2011 general election. While global

⁵ PM Lee Hsien Loong, Chairman of Research, Innovation and Enterprise Council (RIEC), speaking at the 7th RIEC press conference, 25 Oct 2013. <http://www.nrf.gov.sg/science-people/r-d-talent#sthash.v4u3BfLm.dpuf>.

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talent is still welcome, there has been greater focus on developing local talent and local workforce, as evidenced by the large-scale implementation of the SkillsFuture programme over the past few years. The Singapore experience, in short, demonstrates the validity of the Macro view on global talent management and highlights the significance of incorporating the political economy of the nation-state in shaping the characteristics and outcomes of global talent strategy.

(Global) Talent Management at Nanyang Technological University

The essence of Singapore's dynamic governance lies in the effective implementation of public policy and its adjustment according to the circumstances (Neo and Chen 2007). It is therefore imperative to examine at the operational level, how the global talent strategy in the higher education sector described in the previous section was implemented. While there have been a few studies on the National University of Singapore (NUS) and Nanyang Technological University (NTU) (Xavier and Alsagoff 2013; Lim and Boey 2014), no attempts have been done to place the evolution of NTU's talent strategy in the contexts of global talent management and the political economy of higher education in Singapore. This section briefly discusses the practices of talent management—recruitment, nurturing, and appraisal of faculty members at NTU.

A research-intensive public university, NTU now occupies the former Nanyang University's campus where the Nanyang Technological Institute or NTI, was set up in 1981. A decade later, in 1991, NTI merged with the National Institute of Education and was upgraded to be a full-fledged university and renamed NTU. The new university grew rapidly and soon expanded from training engineers to a comprehensive tertiary institution. NTU's vision and mission is "A great global university founded on science

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and technology, nurturing leaders through research and broad education in diverse disciplines." By attracting top talents into its faculty and sparing no efforts to produce creative, interdisciplinary talents to its leadership in the efforts to initiate innovation and change.

NTU is organised into five colleges, namely College of Engineering, the College of Humanities, Arts and Social Sciences, College of Science, the Nanyang Business School and the Lee Kong Chian School of Medicine. The five colleges comprise 13 schools. It also includes National Institute of Education, College of Professional and Continuing Education, Interdisciplinary Graduate School, and S. Rajaratnam School of International Studies. NTU provides courses spanning from engineering, business and medicine, to media and mass communications, education, the humanities and social sciences. NTU's 2017 statistics shows the university has a total of 5,253 faculty and researchers from 81 countries, 24,300 undergraduate students and 8,900 postgraduate students (Nanyang Technological University 2017).

NTU follows Singapore's national strategy in promoting research and innovation. As a global university on the rise, NTU is equipped with an international outlook and it is also a meeting point of both the East and West. In recent years, the university made big strides in at least three world university rankings. It was placed 11th in the Quacquarelli Symonds or QS World University Rankings (up from 74 in 2010) to be Asia's top university in 2017. Also for the fourth consecutive year, it has been named among the Top 50 young universities globally and is a Top 100 university in the world. In 2017, NTU rose to the 52th position (up from 174 in 2010) in the *Times Higher Education* World University Rankings, and was ranked fourth in Asia in the same rankings. The 2017 Academic Ranking of World Universities (ARWU) published by the Shanghai Jiaotong University also placed NTU at between 101 and 150 positions

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up from 301-400 in the same ranking in 2010. In addition, NTU also received accolades for its achievements in many other areas of studies and research including engineering, chemistry, material science and education.

While no rankings are perfect and there is no single yardstick to judge the accomplishments of universities (Goglio 2016; Soh 2017), the fact that all the key performance indicators have shown NTU's significant rise over the past decade does demonstrate that the university has done something right. How did a young university, which was established within a short period of 27 years (especially in the last decade) achieved so much to stun the world? While the overall strategy of talent development and substantial funding support for higher education, as shown in the previous section, has played an instrumental role in this process, we believe that (global) talent management is another key factor contributing to NTU's development. The quality of its faculty will, to a large extent, determine the growth of a university, whether in speed, depth and breadth of growth or its future prospects. NTU's rapid growth came after its series of new measures to attract and nurture talents and establishing a management and evaluation system after it was granted autonomous status by the government in 2006. NTU's talent strategy is structured into two levels: a combination of both top-down and bottom-up approaches" is one, and the other is "Internal to External". We will next introduce the background in detail and thoughts behind the strategy and how we developed and carried it out.

In NTU's talent recruitment model, the responsibility lies in the individual colleges/schools to recruit. All the advertisements are placed in the key global venue, such as *Chronicle for Higher Education* and *Times Higher Education*, in addition to various specialized professional magazines and websites. This ensures the global research for best possible candidates. There are also set criteria for members of the

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recruitment committees. For example, in the recruitment for associate professors, the search committee must comprise five full professors, two of them from outside the school. For the recruitment of assistant professors, three members of the committee must be associate professors or above.

External assessment in line with the global standard also plays a key role for the selection process. Applications for full professors will require the assessment of at least 10 referees from outside the university, all of whom are leading and internationally known academics. The three shortlisted candidates must also give an introductory lecture to undergraduates during their on-campus visit. Their performance will be assessed by the students whose scores and comments have great influence on the final selection outcome. The candidates must also present a research seminar to be assessed by the university post-graduate students and faculty members who will then give their feedback to the recruitment committee. It was only after this process, that the search committee would recommend one candidate for the University's approval. The appointment of associate and full professors with tenure must be approved by the Academic Affairs Committee of the University's Board of Trustees, which is the highest governing organ within the University's governance framework. The Board comprises 16 members appointed by the Minister for Education. The Academic Affairs Committee provides oversight and policy guidance for and directly supports the academic concerns of the University as well as the management of faculty and related matters.

It is through such a stringent and rigorous procedure that NTU has been able to recruit outstanding faculty members to enable the university's rapid growth. In nurturing talents, NTU has adopted several practices including: offering internationally competitive remuneration packages; providing conducive academic environment and a

comprehensive talent nurturing system; setting up a Mentor Program and the Teaching Foundation Program to be led by experienced faculty members to help and guide the new faculty members etc.

Between 2006 and 2015, assistant professors recruited for the tenure-track were given three three-year-long contracts, totalling nine years. On their fifth year, they could apply for tenure. If they failed the first attempt, they were allowed to make a second attempt. If they failed again, they would need to leave by the end of the ninth year, or after the completion of their third three-year contract. The university changed the system from 2016 when the first contract is for four years, and after completing the four-year contract, successful applicants for tenure were given a second contract of three years. During the period, the faculty could apply for associate professorship with tenure.

Just like all international research-intensive universities, obtaining tenure is a big milestone to for all their faculty members. It is not only a recognition of his/her ability to teach and research achievements, but also a form of job security as it enable the tenured faculty to continue working till age the retirement age (65 at present) apart from other benefits such as sabbatical leave with full pay. For assistant professors, their applications for tenure and promotions to associate professorships are linked together in the same exercise. The university conducts the promotion exercise twice annually. Those applying for tenure must go through stringent assessments including areas in teaching, research and service, on the ratio of 5:5:2. On teaching, the assessment includes students' feedback on teaching and curriculum innovation etc. The assessment on research is mainly on the candidate's international impact in his or her respective fields. It includes the number of research publications, their quality and the numbers of citations, research grants and awards, and international peer review etc. In the area of

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service, the assessment includes the candidate's editorial committees of international journals and his/her administrative appointments in the university and the community (see also Lim and Boey 2014). The procedure is all done by the ad hoc committee recommended by the School, endorsed by the College Dean and approved by the Provost.

Another important aspect of the university's talent management is annual performance appraisal system. At NTU, efforts are made to consider the different job scope of its professors, associate professors, assistant professors, senior lecturers and lecturers which includes their course plans in their performance appraisals which follow a merit and demerit system. It helps to encourage the better teaching staff to be creative, at the same time also discourage those tired of teaching from a lack in zeal to carry on. To a certain extent, it plays a role of post-tenure review that has been under extensive discussions in the United States (Aper and Fry 2003; June 2018). The system serves as a mechanism to ensure faculty members including those tenured to perform well through their academic career.

The annual performance appraisal is held accordance to each academic year. The work will begin in April every year, and those involved must fill in a form in the Performance Appraisal System with all necessary data including scores they give themselves for their performance. The form is submitted to the school's performance appraisal committee before going to the college and then to the university for final appraisal and approval. The annual performance bonus will be awarded to individual faculty based upon his/her overall performance in the areas of teaching, research and service and respective ranking within the school.

In short, that NTU can rise to be global university within such a short period is partly due to the critical importance the Singapore government attaches to tertiary

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education and the substantial investment it has poured into the local public universities, which has freed them from financial burdens that are typical of many universities in the industrialized west. An equally important reason, it seems to me, lies in the university's effective governance structure and the talent management practices/implementation which include attracting, nurturing and assessing academic talents. The fact that a significant proportion of the faculty and researchers come from outside of Singapore (including NTU's current and former presidents) has not only reaffirmed the country's favourable positioning with respect to global talent⁶, but also demonstrated the effectiveness of global talent management at work.

Conclusions and Future Research Directions

This chapter has demonstrated the importance of (global) talent management for a nation's socio-economic development. Although a relative young field of scholarly inquiry, global talent management has gained increasing attention from academics, practitioners and policy makers, as there is a widespread acknowledge on the critical role of global war for talent in a country's socio-economic growth. While recruitment, attraction and retention of talent has long been central to the HR literature and practice, our study has reaffirmed the framework proposed by Khilji, Tarique, and Schuler (2015) with respect to the incorporation of macro view in global talent management. At the age of brain circulation and heighthened pace of academic mobility on the

⁶ Singapore has been ranked consistently among top three nations in the Global Talent Competitiveness Index. See for example, Lanvin and Evans 2018.

international stage, global talent management in higher education contributes significantly to innovation and economic competitiveness.

As a newly independent nation that has successfully transformed itself within a few decades from a poor third world country to the first economy enjoying highest level of economic prosperity, Singapore serves as a fine example of managing talent, both domestic and international, for its development and economic transformation. The key role of dynamic governance, in which forward-looking policy formulation and effective implementation, as well as adjustments in line with domestic and global socio-political environments, has been evident in both the public sector as well as the public university management. The Global Schoolhouse project and the autonomous model of governance for public universities in the first decade of the 21st century laid a solid foundation for the nation's progress into a knowledge-based economy. Even though there have been adjustments with respect to immigration policies after the 2011 general election, Singapore remains to be committed to attracting global talent who can contribute to the country's further development.

The case of Nanyang Technological University's rapid ascendance in the global arena of higher education highlights the skilful combination of dynamic governance at the national level with respect to talent development and effective implementation of (global) talent management at the local level. While it is not possible for other universities to duplicate its successful experiences as they are developed under the context of a globalizing city-state with a resourceful leadership, there are some ideals and mechanisms that other countries may look at. These include: building a unique culture for the university, orient itself in serving the country and promote economic and social development of the region; formulating and implementing a systemic strategy for recruiting and nurturing domestic and international talents so that they can play

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important roles in tertiary education; and developing a robust structure of assessing faculty members based upon their teaching effectiveness and global impact in research, supplemented by their service contribution, which are an essence of talent management.

Our discussions have also pointed to some future directions of research with respect to global talent management in higher education governance. In the first place, it is necessary to explore comparatively experiences of global talent management in non-Western countries. While there are some recent studies on non-Western university experiences (e.g., Mok 2010; Xavier and Alsagoff(2013; Soh 2014; Liu Xu 2017; Rungfamai 2017), existing studies of global talent management have been focused on business corporations and practices of higher education in the industrialized west. With the global economic gravity has been steadily shifted toward the Global South, where higher education has developed in a much higher pace, it is imperative to compare and contrast the different trajectories and their global and theoretical significance. In this sense, global talent management in higher education governance is both a reflection and reinforcement of the emerging Asian model of governance (c.f., Marginson 2011; Wang and Liu 2018).

Secondly, it is imperative to incorporate both domestic and global talent management in a unified research framework. Existing literature tends to treat the two under separate framework with different units of analysis. While there is no doubt that diverging interests and operational logics at work, the mechanisms and structures of both domestic and global talent management are closely linked, and in the higher education arena, recruitment, nurturing and appraisals of talent have certain uniformed global benchmarks (which have been reinforced by the supremacy of various global rankings of universities). The separation of two systems in managing domestic and

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global talent may lead to double standard and demoralization/alienation of a particular group, which is not in line with the essence (merit-based) of talent management.

Finally, we need to further examine the impact of global talent strategy in the public policy arena and vice versa. As the case of Singapore has shown, foreign talent policy has been an integral part of the country's immigration policy, which was under public criticisms in recent years. While the Singapore government has maintained its position in embracing global talent, many countries have reverted to populist policies by shutting their doors to the outsiders. How this will affect global talent management in the long run, and how to forge a sensible balance between nationalistic sentiments and logics of global mobility, and how will these trends affect international higher education governance, these are the future questions that require comparative and empirical research from an interdisciplinary perspective.

Acknowledgement: This research was supported by a Singapore Ministry of Education AcRF Tier 2 Grant (MOE2016-T2-02-87), entitled "Transnational Knowledge Transfer and Dynamic Governance in Comparative Perspective" and Nanyang Technological University Strategic Initiative (Globalization, Brain Circulation, and Competition for International Talents: A Comparative Study of Asian, European and North American Experiences and Policy Implications (#M4081392), which are gratefully acknowledged. The author is responsible for the interpretations and any remaining errors of this chapter.

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