

CO-ORGANIZE

HIGHER EDUCATION SYMPOSIUM 2019

EXPANSION OF HIGHER EDUCATION IN CHINA FOR TWO DECADES:
CRITICAL REFLECTIONS FROM COMPARATIVE PERSPECTIVES

25 March 2019

9:00am to 5:00pm

Venue: Department of Education, University of Oxford, U.K.



National-global synergy in the development of higher education and science in China since 1978

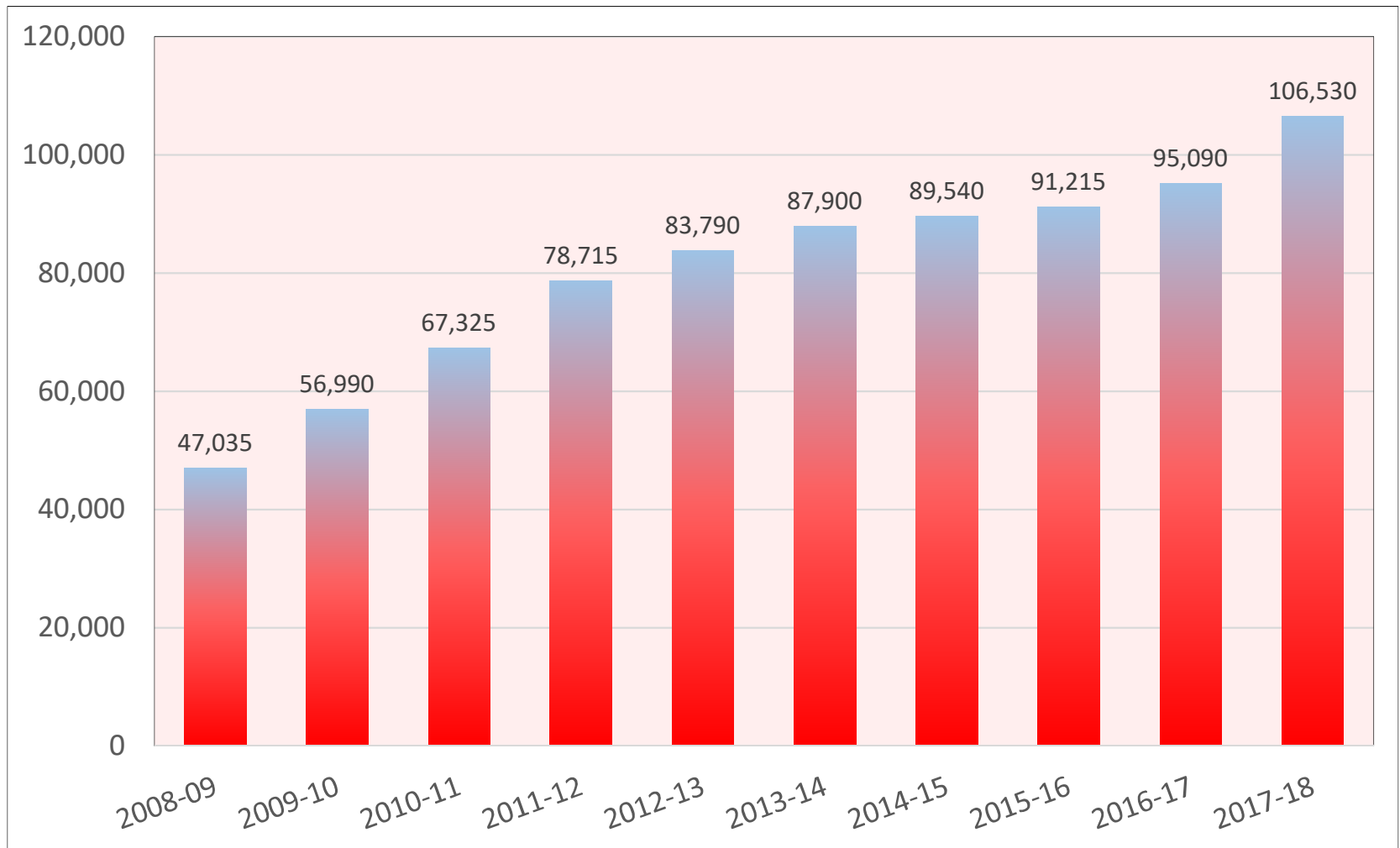
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ESRC/OFSRE Centre for Global Higher Education

Students entering UK from China

2008-09 to 2017-18, UK HESA data



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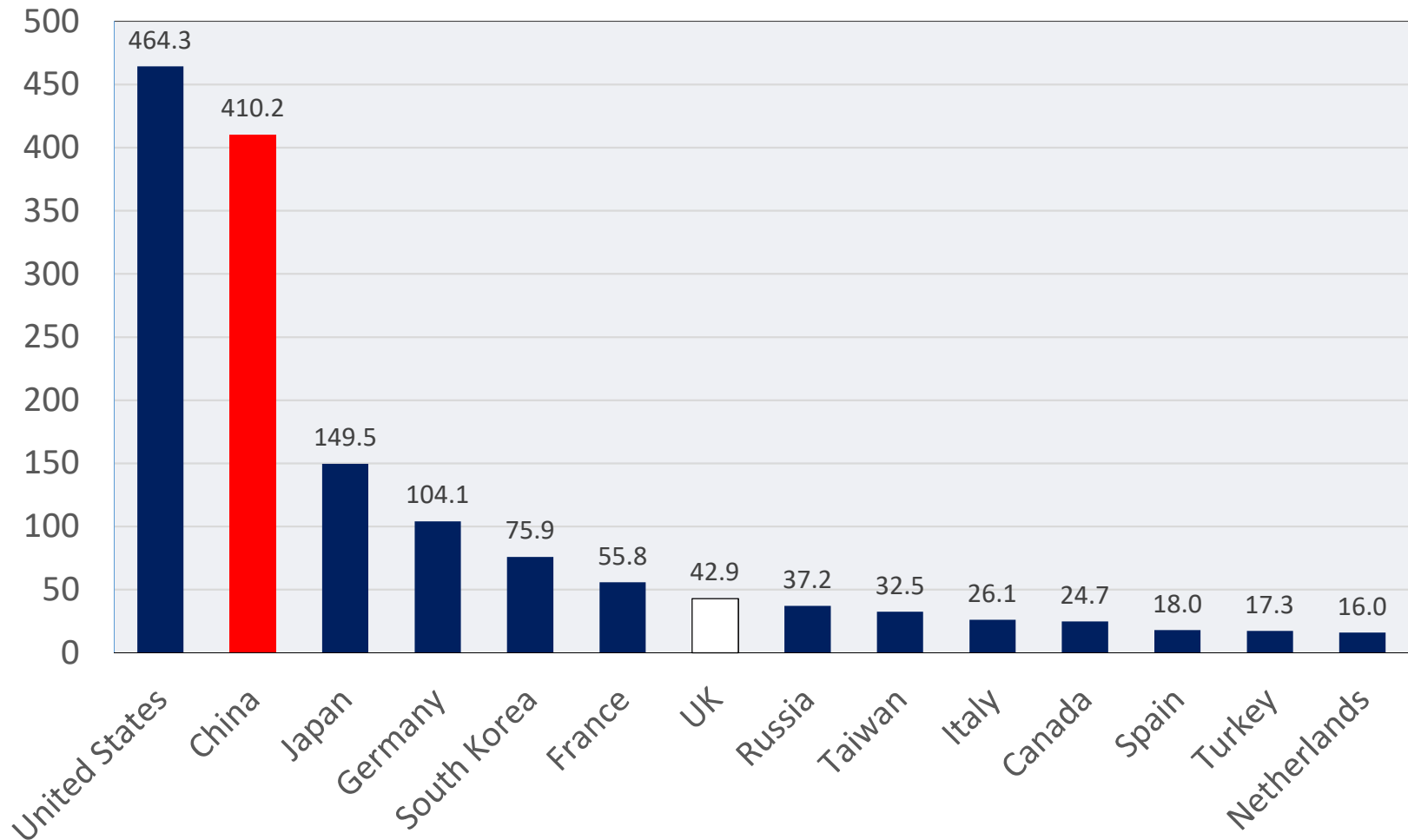
- Achievements
- The foundations
- Global factors
- National factors
- Tensions and limits
- Larger meanings



ACHIEVEMENTS

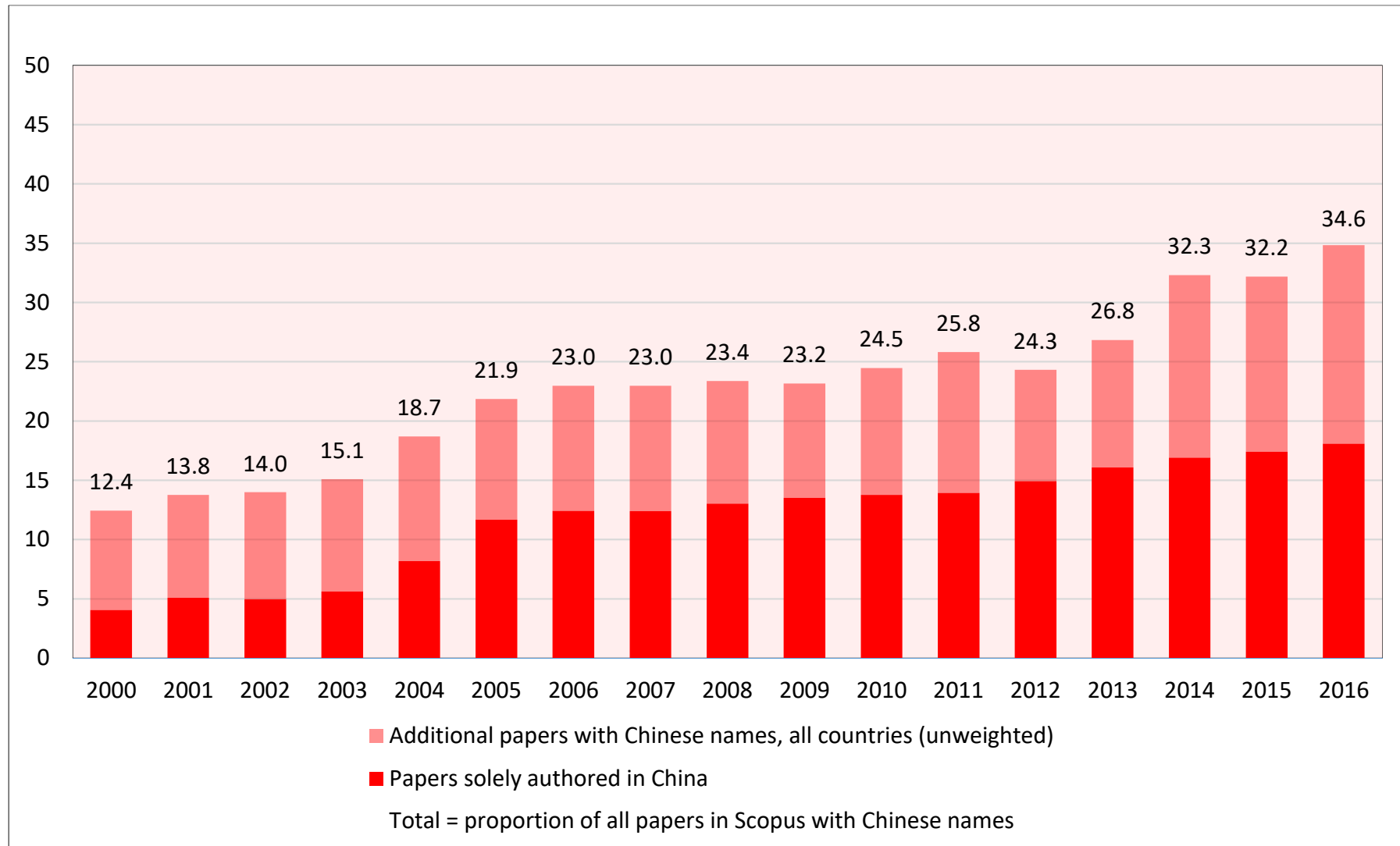
National investment in R&D, 2016

OECD data, \$s billion, constant 2010 USD PPP



Growth of China-associated science papers

Proportion (%) of worldwide papers in Scopus: 2000-2016



World's top 10 universities in Physical Sciences STEM disciplines

high citation papers in (top 10% and top 1%) in 2013-16

University	System	Top 10% papers in Physical Sciences, Engineering, Maths, Computing	University	System	Top 1% papers in Physical Sciences, Engineering, Maths, Computing
Tsinghua U	CHINA	1702	Massachusetts IT	USA	214
Massachusetts IT	USA	1462	Stanford U	USA	197
UC Berkeley	USA	1309	UC Berkeley	USA	174
Zhejiang U	CHINA	1232	Harvard U	USA	160
Nanyang TU	SINGAPORE	1224	Tsinghua U	CHINA	159
Stanford U	USA	1159	Nanyang TU	SINGAPORE	148
NU Singapore	SINGAPORE	1001	U Cambridge	UK	130
Harvard U	USA	988	NU Singapore	SINGAPORE	108
Shanghai JT U	CHINA	966	Caltech	USA	106
U Cambridge	UK	962	EPF Lausanne	SWITZERLAND	106

THE FOUNDATIONS

Strategic assumptions in 1978

- Why: Deng “considered science to be the most crucial of the four modernizations, the one that would drive the other three (industry, agriculture and national defense).” (Vogel, 2011, p. 197)
- Depoliticisation: “Deng said that science had no class character; it could be used by all classes and all countries despite their different political and economic systems” (Vogel, 2011, p. 201). It was enough that scientists were loyal to country and party (p. 202)
- China needed original and basic science: Deng saw internationalization not as a source of borrowed science but a guide to building China’s own capacity.



A centrally controlled depoliticisation and installation of the dual authority system in science

- “Deng also responded to the continuing complaints of scientists that their professional work should be directed by someone familiar with the content. He directed that scientific institutes be reorganized with three top leaders at each institute. The party leader would manage overall policy, but the basic work of the institute would be under the direction of a leader trained in science. A third leader would be in charge of ‘rear services’, with responsibility for improving the living conditions and for ensuring that the scientists had adequate supplies to carry on their work. Aware that intellectuals were upset that they had to spend so much time engaged in physical labor and political education, Deng established a new rule that at least five-sixths of the scientists’ work week was to be spent on basic research.”

- Vogel, E. (2011). *Deng Xiaoping and the transformation of China*. Cambridge, MA: The Belknap Press (p. 208).



National-global synergy

- In the rise of science and higher education in China both national and global factors have been continually in play
- Nations and WCUs exist in the global context and routinely interact with it.
- What has been especially important in China has been the engineered *connection* between national and global activity,



GLOBAL FACTORS

The growth of global science

- The advent of the Internet in the early 1990s saw the rapid growth of global science as a networked system, and its rise to dominance in relation to most national science systems
- The global science network is an open system primarily driven by bottom-up disciplinary conversations not nations
- Leading countries and WCUs do not monopolise activity. They nurture emerging players. This was the dynamic to which China became joined in synergistic fashion
- Policy drove international benchmarking and mobility, so that expanding global science carried China with it



Other global conditions helped

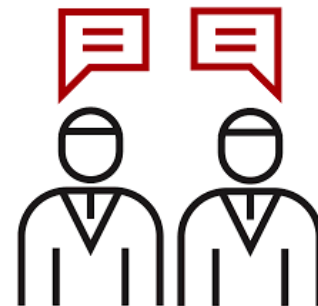
- Timing : Post-1990 was an especially favourable time to plug into globalisation (i.e. global integration and convergence). In the expanding open global space, at first there were relatively few national interest barriers in place
- Positive sum dynamic: China's rise in the economy, science and higher education did not directly impair the United States. China achieved number two power status before the pushback began
- In science and higher education the pushback was even later



NATIONAL FACTORS

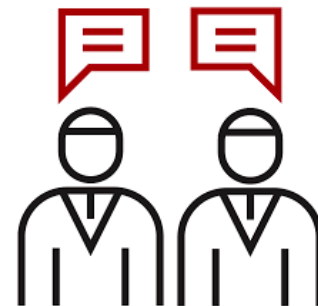
Regulated devolution

- In the distinctive Chinese civilizational (Post-Confucian) state, politics is in command, and the state has a comprehensive role
- Within this tradition the Leninist party-state has achieved an unprecedented capacity for developing universities and science. Investment tailored to performance targets. Control systems (New Public Management + state Leninism) secure the targets
- Deng's managed devolution in science, using the dual leadership system, enabled the state to combine regulated academic freedom and open global connections with top-down control. This paralleled the approach in the new economic zones.



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Nationally controlled global linkages

- Compartmentalisation: China under Deng and after exhibited a distinctive capacity to separate international and domestic relationships. Deng opened economy and universities to foreign science and people mobility without losing party-state control. Even during Tiananmen in 1989 he urged that China stay open
- Strong national identity *and* effective engagement: China in general and in higher education has been able to create a separate power by operating partly outside world systems, but it has also linked to those systems to maximum effect. Globalisation has been managed on Chinese terms



TENSIONS AND LIMITS

Apparent limits

- WCUs in China have successfully combined three elements: the political system (the Leninist state), the corporate university, and academic norms of open science and decision-making on the basis of disciplinary judgment. Leninism in China is more flexible and performance focused than in Soviet Russia but prone to risk aversion. The balance could shift in favor of the first element, so the political state overwhelms autonomous disciplinary cultures
- Corporate university managers also threaten disciplinary cultures
- What happens when the public funding stops growing?
- Can the party-state permit free wheeling social science (which may not endorse its concepts of the social), and independent Chinese characteristics in the humanities?



LARGER MEANINGS

Unique governance

- The Chinese university is still pursuing its foundational project of the late Imperial and early Republican periods, that of a force for modernization that is largely external to China
- The orthodox Western disciplines frame university knowledge
- Arguably, where China has developed a unique approach is in the *governance* of higher education—where a focused state is combined with autonomous disciplinary science engaged in global networks, and regulated by dual university/state authority. This approach has proven to be highly functional

