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RESEARCH

The Making of a Sociology with Distinctive Chinese Characteristics

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This article re-examines the recent history of Chinese sociology from a sociological viewpoint by adopting a perspective that transcends the official powerholders' framework. It focuses on the period between 1978 and 2023, and offers a descriptive analysis of the six features of socialist sociology with distinctive Chinese characteristics under Xi Jinping's regime. It also introduces the concept of "cooperation to resist" and identifies the subfields of sociology that are at risk of decline. The article contends that sociology in China has faced a crisis in the past decade due to its increased utilisation as a tool to support the authoritarian vision of China's modernisation. Such a shift has constrained the discipline and limited the scope of its inquiries, so that it increasingly focuses on politically safe subjects and topics that avoid critical scrutiny. Consequently, such scholarship blurs the boundaries between academic knowledge and propaganda, ultimately compromising the quality of scholarly work in favour of political power.

Sociology in China made a putatively "successful" comeback from virtual extinction to experiencing a robust reincarnation in 1979. To better understand the significance of this rebirth, this article critically examines official Chinese sociology—specifically, works published in major journals and books in Chinese—as an academic discipline since its revival. The inquiry focuses on the process of knowledge development, academic positioning, research content, research methodologies employed, and discipline-building activities.[1] The discussion is situated within the humanistic tradition of C. Wright Mills' *The Sociological Imagination* and Michael Dutton's conceptualisation,

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[1] Yan Fei and Cao Liqun, "Situated Knowledge and Situated Action: The Rise of Chinese Sociology Since 1978", in *Paradigm Shifts in Chinese Studies*, ed. Hua Shiping (Singapore: Palgrave-Macmillan Press, 2022), pp. 263–83.

inspired by Michel Foucault's theory of disciplinary power, of China as a *registered society*.[2] It is argued that the present can best be understood in terms of the past and a dynamic evaluation of the contemporary will reveal insights into an unknown future. The authors argue that sociology in China since 2012 has largely failed to reflect core enlightenment doctrines—such as constitutional government, human rights, progress, tolerance of diversity, and the pursuit of knowledge obtained through reason and the evidence of the human senses. If the current trajectory continues, sociology, as practised and taught in China's contemporary classrooms, will increasingly resemble a "Potemkin village", offering sociology in name only.

The article is divided into three parts. The first presents the remarkable historical comeback of sociology since 1979. Secondly, it draws upon the situated knowledge of contemporary sociological research to offer a substantive critique of the characteristics of official sociology in China. Thirdly, the discussion details ideational regimentation, which involves circumscribing the frontiers of discourse, information dissemination, research and knowledge using regime-sanctioned ideological and cognitive concepts,[3] and highlights its major implications. Fourthly and finally, feminist sociology—viewed as a subversive force vis-à-vis the Party's legitimacy—is used as a telling example of an underdeveloped area of sociology, presenting a missed opportunity for Chinese sociology to establish itself as a full-fledged academic discipline.

THE UPS AND DOWNS OF SOCIOLOGY IN CHINA

Today, sociology is fully institutionalised in China, but with distinctive Chinese characteristics setting it apart from the global community of sociological scholarship. A well-grounded understanding of the past provides a firm foundation for an informed interpretation of the current state of the discipline. According to Yan and Cao, the history of Chinese sociology can be divided roughly into four major periods: the *onset* (1900–51), the *long hiatus* (1952–78), the *reincarnation and great expansion* (1979–2012), and the *full institutionalisation with distinctive Chinese characteristics* (2012–the present).[4] This article focuses on the last two periods, but it is worthwhile to note the main characteristics of the previous two.

Sociology arrived in China around 1900, early in its development as a discipline worldwide, during a time when the need for unprecedented change, not only in science/technology but also in social thought and ideology,[5] became a matter of broad

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[2] C. Wright Mills, *The Sociological Imagination* (New York: Oxford University Press, 1959); Michael R. Dutton, *Policing and Punishment in China: From Patriarchy to "The People"* (New York: Cambridge University Press, 1992); Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (New York: Vintage Books, 1977).

[3] Romi Jain, "The Tightening Ideational Regimentation of China's Higher Education System", *Economic and Political Weekly* 54, no. 30 (2019): 55–63.

[4] Yan and Cao, "Situated Knowledge and Situated Action".

[5] Edmund S.K. Fung, *The Intellectual Foundations of Chinese Modernity* (New York: Cambridge University Press, 2010).

consensus among *fin-de-siècle* Chinese intellectuals. As an academic discipline, sociology grew awkwardly (although in 1931 a non-governmental Chinese Sociological Society was established) and lacked favour with various governments between 1900 and 1951.[6] The primary focus of sociology was on the social problems of the lower echelons of society.[7] Sociological thinking was largely influenced by Marxian thought, but it also included a mix of liberal, conservative and socialist thinking, providing the public with a wide spectrum of ideologies.[8] Before 1950, "outside the United States and Great Britain, there were few countries which had as good a body of teachers and advanced institutions studying sociology as China".[9]

The second period, **the long hiatus**, began not long after the Communist Party of China (CPC) assumed power following a prolonged violent revolution. In its attempt to create a "new society" based on the Soviet model, the regime ordered the closure of all sociology programmes in 1952.[10] While the liberal use of the punishment of death for "enemies" of the state was somewhat expected,[11] the extent of mass surveillance and monitoring of citizens' private conduct constituted an unprecedented form of ubiquitous social control.[12] In this regard, Dutton's theory of "*registered society*", inspired by Foucault's disciplinary power theory, provides insight into the underlying logic of totalitarian governance. Foucault examined how complete power over society is exercised,[13] viewing power as involving an "interaction of warring parties, as the decentered networks of bodily, face-to-face confrontations, and ultimately as the productive penetration and subjectivizing subjugation of a bodily opponent".[14] During the 1950s' Stalinisation of China, "social problems" were declared non-existent, and society, modelled on Soviet Marxism, was not subject to criticism. The CPC's active subjugation of citizens occurred through not only physical, but also disciplinary and cognitive coercion whereby individuals, from one's physical *corpus* to one's cognitive and affective processes, were meticulously archived in personal files (*renshi*

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[6] Lu Yuan, *Chuancheng yu duanlie: Jubian zhong de Zhongguo shehuixue yu shehuixuejia* (*Continuation and Rupture: Sociology and Sociologists amidst Monumental Change in China*) (Shanghai: The Commercial Press, 2019).

[7] Ambrose Yeo-Chi King and Wang Tse-Sang, "The Development and Death of Chinese Academic Sociology: A Chapter in the Sociology of Sociology", *Modern Asian Studies* 12, no. 1 (1978): 37–59.

[8] Fung, *The Intellectual Foundations of Chinese Modernity.*

[9] William H. Newell, "Modern Chinese Sociologists", *Sociological Bulletin* 1, no. 2 (1952): 89–94, esp. 89.

[10] Chen Hon Fai, *Chinese Sociology: State-building and the Institutionalization of Globally Circulated Knowledge* (London: Palgrave MacMillan, 2018); Hsiung Ping-Chun, "The Politics of Rebuilding Chinese Sociology in 1980s", *Qualitative Inquiry* 23, no. 1 (2007): 89–101.

[11] Cao Liqun and Bill Hebenton, "Criminology in China: Taking Stock (Again)", *The Criminologist* 42, no. 2 (2018): 1–9.

[12] Lu, *Chuancheng yu duanlie* (*Continuation and Rupture*).

[13] Foucault, *Discipline and Punish*.

[14] Jürgen Habermas, "Some Questions Concerning the Theory of Power: Foucault Again", in *Critiques and Power: Recasting the Foucault/Habermas Debate*, ed. Michael Kelly (Cambridge, MA: MIT Press, 1994), pp. 79–108.

dang'an). These detailed dossiers followed a person wherever he/she went, resulting in the creation of this "registered society".[15] Higher education without sociology was confined to ideological indoctrination and technical training to serve the needs of a planned economy.[16]

The reincarnation and great expansion (1979–2012). While Yan and Cao's division of periods has served their purpose well, it is possible, given that any historical account is subject to controversy since a range of interpretations is implicit in the use of historical materials, that a more detailed periodisation could be developed within this era: (i) *rebirth* under Hu Yaobang/Zhao Ziyang (1979 to 1989); (ii) *great expansion* under Jiang Zemin (1990 to 2002); and (iii) *stability-maintenance* under Hu Jintao (2002 to 2012).

The political situation took a dramatic turn after Mao Zedong's death in 1976. The reform-minded faction of the CPC shifted the Party's policy focus from class struggle to the active pursuit of economic growth. To enlarge the CPC's social base and to save the national economy from collapse, Deng Xiaoping decided to incorporate the *intelligentsia* into the ranks of the "ruling proletariat", viewing them as intellectuals or *mental workers* (*naoli laodongzhe*). Within this dramatically reconfigured political context, a rebuilding of sociology was permitted. A new Chinese Sociological Association, fully sponsored by the CPC, was established on 16 March 1979 with British-trained sociologist Fei Xiaotong selected as its first president. It is worth noting that this association is not a non-governmental organisation, but rather a peripheral organisation fully funded and assiduously monitored by the CPC. The declared intention of the Association was to develop sociology as another tool for the Party to serve the cause of socialism.[17]

While sociology was once more an officially sanctioned enterprise, the CPC remained cautious and sceptical about the emancipatory potential of the discipline's long-established penchant for critical thinking. To nip any threat in the bud, recruits admitted to sociology programmes were selected from those who "had formally undergone an intensive training in Marxism".[18] A strict political background reliability check (*zhengshen*) was conducted for these newly minted scholars shortlisted to steer the course for the sociology discipline, given their meticulous documentation of their qualification as loyal followers of the communist cause.[19] The first one-year training programme in sociology was launched at Nankai University in 1980–81 (see Table 1). The first department of sociology was established at Shanghai University in 1980. Soon after, sociology programmes began to crop up throughout China.

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[15] Dutton, *Policing and Punishment in China*.

[16] Li Hanlin et al., "Chinese Sociology, 1898–1986", *Social Forces* 65, no. 3 (1987): 612–40; C. Edwin Vaughan and Zhang Chunhou, "The Impact of Modernization on Higher Education in China", *International Sociology* 11, no. 2 (1996): 213–28.

[17] Du Renzhi, "Fully Develop Sociological Research to Serve Socialism", *Chinese Sociology & Anthropology* 13, no. 3 (1981): 41–51.

[18] Li et al., "Chinese Sociology, 1898–1986".

[19] Lucie Cheng and Alvin So, "The Reestablishing of Sociology in the PRC: Toward the Signification of Marxian Sociology", *Annual Review of Sociology* 9 (1983): 471–98.

When Fei Xiaotong accepted the challenge of rebuilding sociology, he was fully aware that his role, as a non-CPC member, was contingent on compliance with CPC aims. Accordingly, he posited that Marxism should be regarded as sociology's guiding theory and that Mao's "field investigation" was its principal method.[20] From 1979 to 1989, the Chinese *intelligentsia* experienced the "Second Liberation" during which time it enjoyed much-needed breathing space and unprecedented freedom. Following the June Fourth Massacre in 1989 and a brief period of greatly restricted freedom of expression,[21] CPC controls began to loosen again as China moved into the 1990s. Economic reform-minded communists regained their prior traction and Chinese society progressively moved into closer alignment with international norms concerning limited academic freedom. A clearer separation between the Party and governmental administration began to develop, and genuine liberalisation appeared to lie ahead.[22] The dominant slogan of the time was "to integrate with the world" (*yu shijie jiegui*). Some features of civil society were permitted to develop, and Jiang Zemin's regime (1992–2002) witnessed another period of relative tolerance. Talented and critical scholars outside academic establishments, such as Deng Zhenglai (邓正来) and even ex-convict Qiu Xinglong (邱兴隆), were recruited into the universities. However, it was also observed that "thinkers fade away while scholars stand out" (*sixiangjia danchu, xuewenjia tuxian*). Sociology emerged as a prominent academic discipline. One of Fei's successors, Zheng Hangsheng (郑杭生), a Marxist scholar (within the Chinese context), insisted on confining sociology within a predetermined Marxist pattern of thought. He believes that the main role of sociology is not societal critique, which he deemed to be detrimental to the development of the discipline in China. Instead, he argues that sociology should focus on contributing to socio-economic development and documenting CPC achievements by collecting massive amounts of data and inventing, whenever possible.[23]

The first cohort of undergraduate degrees in sociology was conferred in 1984 at Shanghai University, and the first PhD degree was awarded in 1988 at Peking University (see Table 1). By 2008, nearly 900 journal articles in sociology had been published,[24] and the annual number has since increased with the emergence of additional publication outlets. As of 2015, more than 6,000 professional sociologists were working in universities and academies, maintaining numerous undergraduate programmes. In 2021, there were, on average, 45 PhD degrees granted for the three largest PhD programmes in China (14 from Tsinghua University, 11 from Peking University and 20 from Fudan University). Nationwide, an estimated 120 to 180 sociology PhD

[20] Yan and Cao, "Situated Knowledge and Situated Action".

[21] Rilly Chen and Yan Fei, "Dynamics of Multidimensional Interaction: The Beijing Upheaval of 1989 Revisited", *Contention* 7, no. 2 (2019): 76–99.

[22] Cao Liqun, "Returning to Normality: Anomie and Crime in China", *International Journal of Offender Therapy and Comparative Criminology* 51, no. 1 (2007): 40–51.

[23] Zheng Hangsheng, *Shehuixue gailun xinxiu* (*New Introduction to Sociology*) (Beijing: Renmin University Press, 1994).

[24] Bian Yanjie and Zhang Lei, "Sociology in China", *Contexts* 7, no. 3 (2008): 20–5.

degrees were awarded in 2021. In 2023, 41 PhD programmes were admitting new PhD applicants. Sociology in China has thrived in many ways, surpassing its first historical period and outperforming all other nations with the sole exception of the United States. A timeline of major sociological events is presented in Table 1.

TABLE 1
A Timeline of Major Events related to Sociology in China

Timeline	Sociology
Around 1900	Missionary universities begin to offer sociology courses
1914	St. John's University in Shanghai sets up a Department of Sociology
1931	The Chinese Sociological Society is established as a non-governmental organisation
1952	All sociology programmes are forced to cease operation
1979	The Chinese Sociological Association is established as a quasi-governmental entity
1980	Nankai University offers instructor training Shanghai University sets up a Department of Sociology
1981	Shanghai University publishes the first professional journal, *Chinese Journal of Sociology*
1984	Shanghai University confers its first cohort of graduates with bachelor's degrees in sociology
1986	The Institute of Sociology, Chinese Academy of Social Sciences, publishes its journal *Sociological Studies*
1988	Peking University confers its first PhD degree in sociology
2021	China grants an estimated 120 to 180 PhD degrees in sociology
2023	41 PhD programmes in sociology are recruiting students

Notes: Data compilation of the number of PhD degrees in sociology from the Annual Report on Degree-awarding Institutions (*Xuewei shouquandian niandu baogao*). Since 2022, the Ministry of Education has required each university to publish its annual report online, detailing the development and establishment of every degree programme. These reports include student enrolment data and the number of graduates for the preceding year. The total number of PhD degrees awarded in 2021 is estimated by the authors.

During his tenure (2002–12) as President of the People's Republic of China (PRC), Hu Jintao was indecisive about the direction of China's future, vacillating in his public policy initiatives between strengthening ideological control and furthering economic reform. For him, "stability" overrode all other considerations. Sociologists at Tsinghua University were able to pioneer a new path for sociology within the framework of "communist civilisation".[25] The internationalisation of higher education began during this period. In general, sociology benefitted from the rapid economic development after China became a member of World Trade Organization, and it became a lucrative profession. Ideological control was stricter than it had been under Jiang Zemin but only intermittently so, and occasional resistance was not met with overly punitive consequences.

Institutionalisation with Chinese characteristics (2012 to the present). The latest period of sociology began when Xi Jinping rose to the CPC leadership in 2012—clearly a watershed year in hindsight. This period can be divided into two

[25] Aurore Merle, "Towards a Chinese Sociology for 'Communist Civilisation'", *China Perspectives* 2 (2004): 1–17.

distinctive periods: "*taking the reins*" (2012–18) and "*assuming full control*" (2018 to the present). Many observers of Chinese political life believe that Deng Xiaoping's reform initiatives began to ebb significantly in 2012.[26] Since then, the CPC has embraced the notion of the "New Era [*xin shidai*] of Xi". To the outside world, China could be seen as the nation which in 2013 surpassed Japan as the second-largest national economy. Inside China, Xi shifted the focus from prioritising economic growth to emphasising political control, initiating his one-person trajectory towards increased ideological control.[27] Academic organisations were actively nudged into serving as bureaucratic organs of the Party-state.[28] The regime's anti-corruption campaign garnered popular support, although such campaigns did not differ greatly from past political purges. Xi's political enemies have been either systematically retired or removed from positions of influence. By 2018, Xi was able to abolish term limits for the presidency of the PRC, with *no open resistance* from the nearly 3,000 delegates of the National People's Congress.

The tightening of ideological control began immediately as Xi Jinping secured the reins of governance. As a single-minded and mission-driven person, Xi has demonstrated patience in gradually intensifying control, becoming in due course the undisputed leader in all areas of public life. Maoist principles and practices—such as the principle of "sticking to the Party's unified leadership" (*yiyuanhua lingdao*)—have been revived across all levels, in all walks of life, including universities. During the reform years (1978–2012), the role of the CPC committees was to support the work of presidents, deans and department chairs to run their academic programmes. In the new era, presidents, deans and department chairs operate under the directives of CPC committees at all levels. While the press enjoyed intermittent periods of limited freedom from 1978 to 2012, control and scrutiny over the media and the content of publications originating from all of academia, including sociology, have been significantly enhanced.[29] In a speech at a symposium of experts in economics and the social sciences, Xi explicitly

[26] Carl Minzner and Jeremy Wallace, "Is China's Reform Era Over? Renewed State Controls in Politics and the Economy May Unravel the Consensus That's Kept China Sable for Decades", *Foreign Policy*, 28 July 2015, at <https://foreignpolicy.com/2015/07/28/china-reform-era-xi-jinping-new-normal/> [8 August 2023].

[27] Lance L.P. Gore, "Leninism for the 21st Century: Xi Jinping's Ideological Party-building", *China: An International Journal* 21, no. 2 (2023): 8–25.

[28] Pi Yijun, "Turning of Academic Organisations into Bureaucratic Organs", *Issues on Juvenile Crime and Delinquency* 181 (2012): 109–10.

[29] Chen Hon Fai, *Chinese Sociology*; Yan Xiaojun, "Engineering Stability: Authoritarian Political Control over University Students in post-Deng China", *The China Quarterly* 218 (2014): 493–513; Yuan Guiren, "Gaoxiao jiaoshi bixu shouhao zhengzhi, falü, daode santiao dixian" (University Instructors Must Uphold the Three Bottom Lines of Politics, Law and Ethics), Xinhua News Agency, 29 January 2015, at <http://politics.people.com.cn/n/2015/0129/c70731-26474982.html> [10 August 2023]; Jennifer Ruth and Xiao Yu, "Academic Freedom and China: Every Instructor Walks on Thin Ice", *Academic Freedom around the World* 105, no. 4 (2019): 39–44.

emphasised the need to develop "socialist sociology with distinctive Chinese characteristics" (*Zhongguo tese shehuizhuyi shehuixue*).[30]

SITUATED KNOWLEDGE: "SOCIALIST SOCIOLOGY WITH DISTINCTIVE CHINESE CHARACTERISTICS"

The following discussion of sociology must be qualified with two caveats. First, the observations and commentaries pertain to sociological literature published within China and written in Chinese. By contrast, sociological studies of China written in English outside the country address a myriad of issues comparable to global sociological concerns, encompassing every aspect of people's "lived" experiences.[31] Second, the commentaries are related to sociological publications published in print (journals and books). They are less relevant to the numerous alternative publications generated in online and grassroots public spaces. These forums of expression are highly volatile, often existing for only a few minutes to a few days before being officially deleted.[32] Publications unfiltered by the CPC are classified as "unofficial sociology", while those publications that had passed the CPC censors are classified as "official sociology".

The political context in which the discipline has evolved can be viewed as an amalgamation of ancient Chinese despotic tendencies and a veneer of Confucian ideals, governed through a Soviet-style dictatorship that employs communism as the ideological foundation.[33] This combination has resulted in a new variation of systematic pervasive control epitomised by the "registered society" established during Mao's era and the

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[30] "Xi Jinping: zai jingji shehui lingyu zhuanjia zuotanhui shang de jianghua" (Xi Jinping: Speech at the Forum of Experts in Economic and Social Fields), Xinhua News Agency, 24 August 2020, at <http://www.xinhuanet.com/politics/leaders/2020-08/24/c_1126407772.htm> [11 August 2023].

[31] Michael Caster, *The People's Republic of the Disappeared: Stories from Inside China's System for Enforced Disappearances* (New York: Safeguard Defenders, 2017); Merle Goldman, *From Comrade to Citizen: The Struggle for Political Rights in China* (Cambridge, MA: Harvard University Press, 2005); Gail Hershatter, *Women in China's Long Twentieth Century* (Berkeley, CA: University of California Press, 2007); Daniel F. Vukovich, *Illiberal China: The Ideological Challenge of the People's Republic of China* (Singapore: Palgrave Macmillan, 2019); Zheng Tiantian, *Violent Intimacy: Family Harmony, State Stability, and Intimate Partner Violence in Post-Socialist China* (London: Bloomsbury Academic, 2022); Jude Howell and Tim Pringle, "Shades of Authoritarianism and State–Labour Relations in China", *British Journal of Labour Relations* 57, no. 2 (2019): 223–46; Zheng Wang, "'State Feminism'? Gender and Socialist State Formation in Maoist China", *Feminist Studies* 31, no. 3 (2005): 519–51; Pei Yuxin, Sik-ying Ho Petula and Ng Man Lun, "Studies on Women's Sexuality in China Since 1980: A Critical Review", *Journal of Sex Research* 44, no. 2 (2007): 202–12; Xu Jianhua, "Urbanization and Inevitable Migration: Crime and Migrant Workers", in *The Routledge Handbook of Chinese Criminology*, ed. Bill Hebenton, Ivan Y. Sun and Cao Liqun (London: Routledge, 2014), pp. 209–23; Tony Huiquan Zhang, "The Rise of the Princelings in China: Career Advantages and Collective Elite Reproduction", *Journal of East Asian Studies* 19, no. 2 (2019): 169–96.

[32] Sebastian Veg and Edmund W. Cheng, "Revisiting the Public Sphere in 20th- and 21st-century China", *The China Quarterly* 246 (2021): 317–30.

[33] Cao Liqun and Bill Hebenton, "China and 'La questione criminale' ('The Criminal Question'): Revolutionary and Reformist Periods", *International Journal of Law, Crime and Justice* 52 (2018): 98–105.

rapid development of the cyber surveillance state under Xi.[34] In-group trust and *guanxi* (connections) have taken top priority over out-group trust.[35]

In this context, a "socialist sociology with distinctive Chinese characteristics" has been proclaimed; this is characterised by six key features. First, under Xi, sociology, like all academic disciplines, has regressed to the Mao era—i.e. in the attempt to replicate Mao's era without Mao himself. Like the law and punishment,[36] it functions as an instrument for social control that serves primarily the interest of the Party-state. Specifically, under Xi, sociology is tasked with contributing to the realisation of the "Chinese dream" of national rejuvenation, providing a platform for promoting Chinese culture globally[37] and suppressing certain memories domestically.[38] Sociologists are integrated into the top-down structure of political communication and must therefore act as the vanguard of the communist regime; they function therefore as elements in an ideological enterprise, enabling state supervision and control, and facilitating indoctrination that perpetuates the Party rule.[39]

Second, knowledge production, considered as part of the ideological domain, has been dominated by the Party-state rather than by independent individual scholars or academic disciplines,[40] resulting in an exercise of *political intellectualism* rather than an objective pursuit of intellectual inquiry. Government projects are not aimed at generating critical and reflexive research. Even in the area of anti-corruption, only retrospective analyses are permitted. The purpose of sociological inquiry is to provide nuts-and-bolts (political) knowledge for the governing body *in a reaffirming way*. For

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[34] Margaret Hu, "From the National Surveillance State to the Cybersurveillance State", *Annual Review of Law and Social Science* 13 (2017): 161–80; Shi Chen and Xu Jianhua, "Surveillance Cameras and Resistance: A Case Study of a Middle School in China", *The British Journal of Criminology* 64, no. 5 (September 2024): 1150–70; Tony Huiquan Zhang, Xu Jianhua and Liu Jinjin, "How Do Toothless Tigers Bite? Extra-institutional Governance and Internet Censorship by Local Governments in China", *The China Quarterly*, online first (2024), at <https://doi.org/10.1017/S0305741024000602>.

[35] Fei Xiaotong, *From the Soil: The Foundations of Chinese Society* (Berkeley, CA: University of California Press, 1992); Bian Yanjie, "The Prevalence and the Increasing Significance of Guanxi", *The China Quarterly* 235 (2018): 597–621.

[36] Dutton, *Policing and Punishment in China*; Susan Trevaskes, "A Law unto Itself: Chinese Communist Party Leadership and *yifa zhiguo* in the Xi Era", *Modern China* 44 (2018): 347–73.

[37] Jain, "The Tightening Ideational Regimentation of China's Higher Education System".

[38] Jean-Philippe Béja, "Forbidden Memory, Unwritten History: The Difficulty of Structuring an Opposition Movement in the PRC", *China Perspectives* 4 (2007): 88–98.

[39] Rogier J.E.H. Creemers and Susan Trevaskes, *Law and the Party in China: Ideology and Organization* (New York: Cambridge University Press, 2020); Hao Zhidong and Guo Zhengyang, "Professors as Intellectuals in China: Political Identities and Roles in a Provincial University", *The China Quarterly* 228 (2016): 1039–60; Susan Trevaskes, "A Law unto Itself: Chinese Communist Party Leadership and Yifa Zhiguo in the Xi Era", *Modern China* 44, no. 4 (2018): 347–73; Ruth and Xiao, "Academic Freedom and China: Every Instructor Walks on Thin Ice".

[40] Bill Hebenton and Susyan Jou, "Criminology in and on China: Discipline and Power", *Journal of Contemporary Criminal Justice* 26, no. 1 (2010): 7–19; Susyan Jou, Bill Hebenton and Cao Liqun, "Development of Criminology in Modern China", in *The Routledge Handbook of Chinese Criminology*, ed. Cao Liqun, Ivan Y. Sun and Bill Hebenton (London: Routledge, 2014), pp. 16–26.

example, no existing sociological journals have published any opposing or questioning articles regarding the negative and morally questionable aspects of the zero-COVID policy over the past three years. In addition, little reflexive and/or critical theory, which for many of the world's sociologists are the foundation of sociology,[41] has been produced by sociologists. As Mills argues, "sociological imagination" encourages researchers to "not allow public issues as they are officially formulated…to determine the problems that [they] take up for study".[42] The outwardly impressive presence of sociologists at PRC universities masks the absolute lack of critical intellectual questioning of public institutions and the continuance of dubious policies.

Third, there is a tendency in published articles to obfuscate rather than clarify reality. Avid and uncritical sociologists often create highly abstract Chinese neologisms for concepts already well-established in English. For example, social classes become "social layers" and "social inequality" (*shehui bu pingdeng*) is replaced with "social disparity" (*shehui chaju*). The concept of "rule of law" is substituted with "rule by law", and punishment is equated with justice. The severe exploitation of migrant workers is euphemistically referred to as deriving "population dividends".[43] The narratives about peasants who leave home to work in cities often focus on their satisfaction in earning a higher income, omitting the suffering they endure in factories and the discrimination they face from urban residents.

Fourth, in response to the call for "socialist sociology with distinctive Chinese characteristics", sociologists have reignited another round of fruitless bickering about *bentuhua* or indigenisation of sociology, initially started in the 1930s by Wu Wenzao.[44] The debate is largely one-sided in favour of methodological nationalism, and hardly argues in defence of cosmopolitanism.[45] Methodological nationalism assumes that nation-states are the natural and necessary form of organising a successful modern society. It tends to feed off the banal nationalism of everyday language and social practices. By contrast, cosmopolitanism rejects the notion that a nation's exclusionary dimensions are permanent, unsurmountable or all-encompassing,[46] advocating instead for openness, inclusivity and self-determination.[47] The indigenisation debate in China

[41] Julian Go, "Unveiling Power, or Why Social Science's Task is Explanation", *The British Journal of Sociology* (2023): 1–5, at <https://doi.org/10.1111/1468-4446.13056>.

[42] Mills, *The Sociological Imagination*, p. 226.

[43] Zhang Xinyi, Yan Fei and Chen Yulin, "A Floating Dream: Urban Upgrading, Population Control and Migrant Children's Education in Beijing", *Environment and Urbanization* 33, no. 1 (2021): 11–30.

[44] Wu Wenzao (吴文藻), a Chinese sociologist in the 1930s, was the leader of the "Chinese school of sociology".

[45] For a balanced and rigorous debate on the issue from both sides, see Daniel Chernilo, "Beyond the Nation? Or Back to It? Current Trends in the Sociology of Nations and Nationalism", *Sociology* 54, no. 6 (2020): 1072–87.

[46] Gerard Delanty and He Baogang, "Cosmopolitan Perspectives on European and Asian Transnationalism", *International Sociology* 23, no. 3 (2008): 323–44.

[47] Francis T. Cullen, "Social Support as an Organizing Concept for Criminology: Presidential Address to the Academy of Criminal Justice Sciences", *Justice Quarterly* 11, no. 4 (1994): 527–59.

largely concluded by the 1930s and the current debate is seen as having little scientific value and is considered a pseudo-problem.[48]

Fifth, the limited scope of academic freedom significantly influences what data are collected, how they are assembled, and consequently how they are interpreted and which interpretations are disseminated. Censorship is pervasive in survey research; topics considered politically sensitive are prohibited and certain survey items are removed. These omissions preclude the possibility of comparative studies and severely reduce the comparability of cross-cultural studies.[49] In addition, expressed opinions under a totalitarian state are often inaccurate as people are alienated from the political decision-making process and fear government persecution.[50] Consequently, such quantitative data are dubious and less reflective of true public sentiment. Uncritical use of these data often results in what Mills characterised as "abstracted empiricism"[51]—scholarship in which social reality is largely lost in a narrow focus on method and measurement.

Sixth, many sociological areas of study are at risk of becoming extinct due to both vertical (top-down) censorship and horizontal self-censorship. Limited studies that were permitted from the previous periods have now become endangered, including but not limited to studies related to feminist sociology, criminology, social movements and political participation (see Table 2 for details). As governmental censorship continues to intensify, the list of taboo topics will likely expand further: capital punishment, civil society, constitutionalism, economic deprivation, ethnic minority riots, homelessness, human rights, injustice, intimidation of dissidents, mistreatment of criminal defendants and even lawyers, the petition system, press freedom, sexual harassment, state crime, suppression of intellectuals, village voting, and the white paper movement, etc.

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[48] Xie Yu, "Zouchu Zhongguo shehuixue bentuhua taolun de wuqu" (Avoiding the Misleading Trap of Sociology Localisation in China), *Shehuixue yanjiu* (*Sociological Studies*) 2 (2018): 1–13. While Xie Yu believes that *bentuhua* is a non-issue, Zhao Dingxin, a retired professor of sociology from the University of Chicago and currently a professor at Zhejiang University, posits that sociology is not a Western import but rather it reflects indigenous thinking of the Chinese. See Zhao Dingxin, "Cong Meiguo shiyong zhuyi shehui kexue dao Zhongguo tese shehui kexue: zhexue he fangfa lun jichu tanjiu" (From American Pragmatic Social Sciences to Social Sciences with Chinese Characteristics: An Ontological and Epistemological Reflection), *Shehuixue yanjiu* (*Sociological Studies*) 1 (2018): 17–40.

[49] Zhuo Yue and Cao Liqun, "Civil Disputes Resolution in Contemporary China: Action vs. Intention", *Crime, Law and Social Change* 66, no. 5 (2016): 507–23.

[50] Cao Liqun and Dai Mengyan, "Confidence in the Police: Where Does Taiwan Rank in the World?", *Asian Journal of Criminology* 1 (2006): 71–84.

[51] Mills, *The Sociological Imagination*.

TABLE 2
A List of Endangered Subfields of Sociology in China

Subfields of Sociology	Specific Topics
Feminist Sociology	gender equality, LGBTQ2 (lesbian, gay, bisexual, transgender, queer and two spirit), prostitution, sex industry, women's rights
Criminology	Anomie, constitutionalism, corruption, justice, legitimacy, police deviance, policy on ascetic deviance, rule of law, state crime
Social Movements	collective behaviour, contentious politics, political conflicts, ethnic riots, popular protest
Government	Government–business collusion, government trust, interest groups, political capital, political suppression, medical sociology, state–labour relationship
Political Participation	civil society, civic engagement, civil rights, democracy, non-governmental organisations, religious practice
Social Inequality	class politics, disadvantaged social groups, income disparities, marginalised social groups, rural-urban divide

Notes: Table 2 is a modified version based on a table developed by Yan Fei and Cao Liqun. While Yan and Cao highlight the underdeveloped subfields of sociology, Table 2 highlights that the subfields are at risk of elimination in the immediate future; see Yan Fei and Cao Liqun, "Situated Knowledge and Situated Action: The Rise of Chinese Sociology Since 1978", in *Paradigm Shifts in Chinese Studies*, ed. Shiping Hua (Singapore: Palgrave-Macmillan Press, 2022), pp. 263–83.

Reform-minded scholars view the new period with notable trepidation, considering it a retrograde development and a new form of despotism that pretends to respect expertise and openly disparages sociological knowledge.[52] Before Xi's era, the state typically coaxed intellectuals into compliance with the Party-state dictates. However, in the new era, the Xi regime has publicly clamped down on academics who dare to deviate from the Party line.[53]

The governance power of the CPC is however certainly not monolithic. While the phenomenon of "educated acquiescence"[54]—acceding to political compliance in exchange for benefits and visibility in the state-sanctioned academic limelight—appears to be widespread, the reality is more complex. Beneath this seeming acquiescence lies a potential volcano of dissent, indicating that the *intelligentsia*, sociologists included, are not entirely convinced of the Party's goals.[55] Many sociologists, with years of training in the discipline, adopt a "cooperate to resist" approach towards their jobs and their publications. They attempt to comply with the Party's demands to keep

[52] Xu Zhangrun, "Women dangxia de kongju yu qidai" (Our Contemporary Fear and Expectation), Unirule Institute of Economics, at <http://unirule.cloud/index.php?c=article&id=4625> [18 September 2023].

[53] Tom Phillips, "Chinese Universities Must Become Communist Strongholds, says Xi Jinping", *The Guardian*, 9 December 2016, at <https://www.theguardian.com/world/2016/dec/09/china-universities-must-become-communist-party-strongholds-says-xi-jinping> [10 August 2023]; Christian Shepherd, "Chinese Academic Stopped from Teaching after Criticizing Party Leadership", *Financial Times*, 25 March 2019, at <https://www.ft.com/content/8af0cfdc-4f11-11e9-b401-8d9ef1626294> [11 August 2022].

[54] Elizabeth J. Perry, "Educated Acquiescence: How Academia Sustains Authoritarianism in China", *Theory and Society* 49, no. 1 (2020): 1–22.

[55] Hao and Guo, "Professors as Intellectuals in China".

their jobs and get their articles published (see a case study by Wang and Liu[56]). The "cooperate to resist" concept pertains to a strategy of public obedience coupled with private resistance. This form of resistance is common in totalitarian regimes, where open opposition is impossible and governments can never fully extinguish human freedom. The concept is similar to Erika E.S. Evasdottir's "obedient autonomy" concept, which is "a self-directed control over change that takes effect only through the concerted effort".[57] Moreover, a few sociologists, such as Guo Yuhua (郭于华), Sun Liping (孙立平), Yu Jianrong (于建嵘) and Zheng Yefu (郑也夫), along with legal scholars like Lao Dongyan (劳东燕), Xu Zhangrun (许章润) and Zhang Qianfan (张千帆), have openly steered clear of making a Faustian bargain and work within the "cracks" of virtual public spaces, which are characterised by their short-lived presence or duration in cyberspace, always far removed from the official limelight. Without legal protections and the support of civil society, these scholars, like some of their administrators who are also intellectuals and are unable to resist ideological encroachment, cannot function openly for long. Nevertheless, through considering the courageous work being done in these cracks, the authors find both light and continuing hope for the future of Chinese sociology.

Xi's tightening grip on society, akin to Maoist totalitarianism, has intensified melancholy among intellectuals. The global sociological community actively celebrates diversity of thought, self-critical introspection, ongoing critical assessments of social institutions, and the active exchange of insights across cultures and nations. The concept of universal human rights holds genuine significance for them and demonstrating through scientific inquiry how contemporary social institutions and orthodox thinking often impede the realisation of those rights is a core element of Mills' *Sociological Imagination*. Xu and Liu, in their commentary on "public criminology" in China, argue that the term connotes "neither public nor criminology" because criminology in China is heavily influenced by the state and lacks both public engagement and academic independence.[58] Given the aforementioned six features of sociology, a similar conclusion can be drawn about the field as a whole: sociology in China is on its way to becoming "sociology" in name only.

Ironically, the current critique of sociology in China originates from the Western Marxian tradition of sociology, spanning from C. Wright Mills to Edward W. Said, and from Michel Foucault to Michael Dutton. These scholars consistently warn against the often subtle power/knowledge nexus in the West. On the other hand, the blatant collusion of power and knowledge, as well as propaganda and academic research, began

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[56] Wang Di and Liu Sida, "Performing Artivism: Feminists, Lawyers, and Online Legal Mobilization in China", *Law & Social Inquiry* 45, no. 3 (2020): 678–705.

[57] Erika E.S. Evasdottir, *Obedient Autonomy: Chinese Intellectuals and the Achievement of Orderly Life* (Vancouver: University of British Columbia Press, 2004), p. x.

[58] Xu Jianhua and Liu Weidi, "Public Criminology in China: Neither Public nor Criminology", in *Routledge Handbook on Public Criminologies*, eds. Kathryn Henne and Rita Shah (London: Routledge, 2020), pp. 152–62.

with the Soviet Union under Stalin and has since been inseparable in communist states. Such power-centric scholarship, like its totalitarian form of governance, represents an alternative mode of knowledge production that challenges the sociology of knowledge. It also weakens the long Confucian tradition of remonstration, which emphasises principled service and holds that it is morally wrong to point to a deer and claim it is a horse. The viewpoint in this article is also supported by some courageous voices within Chinese sociology; some of these voices are outside of Chinese government control, such as Edmund Fung and Chen Kuan-Hsing[59] who artfully articulate sociologists' concerns in China.

FEMINIST SOCIOLOGY IN CHINA: AN UNDERSTUDIED AREA OF INQUIRY

Feminist sociology serves as a convincing example of the significant limitations in the development of sociology during the reform years (1978–2012); today, under the current regime, it faces the risk of extinction. Since the 1970s, feminist sociology has established a significant presence in North America and Europe. Feminist views have, in many respects, redefined long-standing debates about epistemology, the scientific method, political dynamics and forms of human knowledge.[60] Gender studies has emerged as a speciality area of wide interest in the discipline of sociology. The "Sociology of Sex and Gender" section of the American Sociological Association was re-established in 1973, and the journal *Gender and Society* was launched in 1987. Within the American Society of Criminology, the Division of Women and Crime was established in 1983, and the journal *Feminist Criminology* was launched in 2006. A gender-based view of knowledge and a "standpoint epistemology" that includes feminist ontology, feminist pedagogy and feminist methodology are now common in North American and European sociology.

In China, Confucianism has long defined women's role as subservient.[61] However, extensive contact with Western civilisation since the late Qing dynasty prompted significant changes in the status of women. At the start of the 20th century, Christian missionaries first introduced the idea of gender equality and led the anti-foot-binding movement in the country. As the first wave of industrialisation reached China, women began to work in factories in major coastal cities. In 1912, the Republic of China abolished the practice of foot-binding for women—the ultimate symbol of male oppression of women.

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[59] Fung, *The Intellectual Foundations of Chinese Modernity*; Chen Kuan-Hsing, *Asia as Method: Toward Deimperialization* (Durham, NC: Duke University Press, 2010).

[60] Catharine A. MacKinnon, "Feminism, Marxism, Method, and the State: An Agenda for Theory", *Signs* 7, no. 3 (1982): 515–44.

[61] Susan L. Mann, *Gender and Sexuality in Modern Chinese History* (New York: Cambridge University Press, 2011).

The Constitution of the Republic of China, adopted in 1947, granted universal suffrage. After the communists assumed power in 1949, women appeared to enjoy a more equal status.[62] The CPC, through its organisation, the All-China Women's Federation, continued with the previous Nationalist government's policy of abolishing prostitution, deeming it a form of violence against women. In the 1950s, the CPC forced all known prostitutes into labour camps for re-education. In 1958, the CPC proudly declared to the world that prostitution had been eradicated nationwide, claiming this achievement as a major symbol of communist China's transformation into a modern nation.[63] Outside China, many scholars tend to associate "Chinese women's liberation" under the CPC with the Western feminist movement, partially out of nostalgic fantasy. Some published articles and monographs reference a quote attributed to Mao Zedong: *Women can hold up half the sky*, citing it as evidence of Mao's sympathy towards feminism. However, scholars found no evidence of such a statement in their research of all published works by Mao.[64] Revisiting Mao's female labour models and "Iron Girls" myths reveals that women's stories were far more complex than the Party-state's claim that women had broken through all gender boundaries in the workplace.[65] In fact, traditional gender roles have remained widely accepted by many Chinese women to this day.[66]

Sociological research indicates that progress on the status of women in China has been very limited. While recognising improvements in employment and income for rural and urban women during Mao's era, researchers report that this progress fell short of the promised revolution for gender equality.[67] Since the introduction of the market economy in 1978, female workers have faced significant discrimination in hiring and layoffs. Similarly, wages in both state and non-state sectors have been deteriorating, further lowering the economic status of women relative to men. Despotic management practices in the private sector have worsened working conditions for hundreds of thousands of women in south China.[68] Similar disheartening stories from rural China suggest that, while men lead the expansion of family businesses, women

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[62] Zheng, "'State Feminism'?".

[63] Liang Bin and Cao Liqun, "China's Policies toward Illegal Drugs and Prostitution in the New Era: Struggle within the Global Context", in *Modern Chinese Legal Reform*, ed. Li Xiaobing and Fang Qiang (Lexington, KY: The University Press of Kentucky, 2013), pp. 189–212.

[64] Zhong Xueping and Ren Ming, "Funü nengding banbiantian: yige you sizhong shuofa de gushi" (Four Interpretations of the Slogan 'Women Hold up Half the Sky'), *Nankai xuebao* (*Nankai Journal*), no. 4 (2009): 54–64.

[65] Yang Wenqi and Yan Fei, "The Annihilation of Femininity in Mao's China: Gender Inequality of Sent-down Youth during the Cultural Revolution", *China Information* 31, no. 1 (2017): 63–83.

[66] William L. Parish and Sarah Busse, "Gender and Family", in *Chinese Urban Life under Reform*, ed. Tang Wenfang and William L. Parish (New York: Cambridge University Press, 2000), pp. 209–31.

[67] Martin King Whyte, "Sexual Inequality under Socialism: The Chinese Case in Perspective", in *Class and Social Stratification in Post-Revolution China*, ed. James L. Watson (New York: Cambridge University Press, 1984), pp. 198–238.

[68] Lee Ching Kwan, "Engendering the Worlds of Labor: Women Workers, Labor Markets, and Production Politics in the South China Economic Miracle", *American Sociological Review* 60, no. 3 (1995): 378–97.

are often left to bear the onerous burdens of agricultural production work. One study noted that sexual harassment is a severely understudied subject in China; over the past 50 years, over 5,320 papers in English but just 122 in Chinese have examined this issue.[69] Although formal regulations against sexual harassment in the workplace exist, there are no published data on the number of cases filed and won by women in court.

Even well-educated and self-employed female entrepreneurs can experience how a cycle of violence is perpetuated.[70] Studies reveal that domestic violence is a serious issue, particularly in rural areas.[71] Surprisingly, few ethnographic studies on intimate partner violence have been conducted in China to date. Despite official claims regarding the status of women, the entrenched male-dominant culture remains strong. The release of Tan Weiwei's 2021 song "Xiao Juan" brought the outcry of the Chinese #MeToo movement to public awareness. In response, the Party-state, however, has intensified its suppression of the movement, prohibiting discussions and barring harassment survivors from posting on social media.[72] Disturbing stories of domestic violence have also frequently captured public attention,[73] underscoring that women's emancipation and gender equality are still far from reality. Traditional Chinese concepts of a well-ordered family, with women in subservient roles to the male head, are strongly reflected in the CPC's emphasis on monogamous, heterosexual families.[74] This tradition was reaffirmed by Xi Jinping's recent call for women to fulfil their primary roles as "dutiful wives and virtuous mothers" in promoting family harmony through "raising and educating the next generation, taking care of their husbands, and supporting the elderly".[75]

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[69] Sun Yufan, "Haiwai xingsaorao yanjiu 50 nian 5,000 pian zongshu: weishenme Zhongguo meiren yanjiu?" (A Review of 5,000 Articles on Sexual Harassment Research Conducted Overseas in the Past 50 Years: Why is No One Doing Research within China?), 7 May 2023, at <https://mp.weixin.qq.com/s/Zh3V1w_OcKVpvsvCYVhlvg> [26 December 2023].

[70] Zhang Dongling, "The 'She Power' That Was Not: A Contextual-Interfaces Analysis of Chinese Women Micro-Entrepreneurs' Experiences of Gender-Based Violence", *American Review of China Studies* 22, no. 2 (2021): 1–29.

[71] Wang Xiangxian, Fang Gang and Li Hongtao, "Gender-based Violence and Hegemonic Masculinity in China: An Analysis Based on the Quantitative Research", *China Population and Development Studies* 3 (2019): 84–97.

[72] Qiu Geping and Cheng Hongming, "Gender and Power in the Ivory Tower: Sexual Harassment in Graduate Supervision in China", *Journal of Gender Studies* 32 (2024): 600–15.

[73] Elsie Chen, "Her Abuse was a 'Family Matter' until It Went Live", *The New York Times*, 15 November 2020, at <https://www.nytimes.com/2020/11/15/world/asia/china-women-domestic-abuse.html> [9 August 2023]; Wu Yitong et al., "Chinese Commentators Slam Official Findings in Jiangsu Chained Woman Case", *Radio Free Asia*, 24 February 2022, at <https://www.rfa.org/english/news/china/woman-chained-02242022123530.html> [9 August 2023].

[74] Mann, *Gender and Sexuality in Modern Chinese History*.

[75] Zheng, *Violent Intimacy*, p. 7.

During periods of relatively lax censorship, termed the "good times", research on sexuality began to appear in Chinese sociological literature.[76] These studies were introductory and descriptive, reflecting a theme of resistance to social injustice. They did not challenge the CPC's official policy, but rather sought to raise awareness of the ongoing inequality. As MacKinnon aptly observes, "sexuality is to feminism what work is to Marxism: that which is most one's own, yet most taken away".[77] Indeed, the delicate topics of sexual orientation and gender identification have been largely neglected by sociologists. Simultaneously, the thriving sex industry, which re-emerged in contemporary China following economic reforms, has also escaped rigorous sociological investigation. The Chinese government has enacted a series of laws banning prostitution and third-party involvement in prostitution. These laws premise that prostitution both humiliates and commodifies women, thereby undermining advancement towards gender equality. However, Zheng has observed that while males who engage in unauthorised migration are generally depicted as making rational, self-serving economic decisions, female migrants are more likely to be lured or coerced into prostitution due to limited economic opportunities, low levels of education and a lack of social mobility. As a result, women are frequently cast as passive victims in need of rescue and "rehabilitation".[78]

Such differential framing of male and female behaviour reinforces the marginalisation of women and undermines gender equality. Choi argues that the victim's perspective has displaced the blame for unsafe sex practices, which harm public health, onto sex workers themselves. In reality, male clients resist the use of condoms. The legal prohibition of prostitution prevents sex workers from negotiating safe sex practices, thereby increasing their risk of exposure to HIV (human immunodeficiency viruses) and sexually transmitted diseases.[79] In other words, the overmoralisation of prostitution does not halt the spread of sexually transmitted diseases. By contrast, sociologists in other countries have tended to focus on the lived experiences of women, listening carefully to the voices of sex workers themselves rather than merely representing their voices, speculating on their behaviour or making assumptions about their moral character.

Under state-derived feminism, human agency becomes the monopoly of the Party-state. Changes regarding gender equality are directed entirely from above and mobilised through the organisational channels of the All-China Women's Federation. The Party-state, through the Federation, defines the causes, methods and vision of change and serves as the guardian and male protector of women's rights and interests.

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[76] Luo Muyuan, Li Tangmei and Shi Junpeng, "Sociology of Homosexuality in Twenty-first-century China", *International Sociology* 37, no. 5 (2022): 569–81.

[77] MacKinnon, "Feminism, Marxism, Method, and the State", esp. 515.

[78] Zheng Tiantian, "Prostitution and Human Trafficking", in *The Routledge Handbook of Chinese Criminology*, ed. Cao Liqun, Ivan Y. Sun and Bill Hebenton (London: Routledge, 2014), pp. 197–208.

[79] Susanne Y.P. Choi, "State Control, Female Prostitution and HIV Prevention in China", *The China Quarterly* 205 (2011): 96–114.

Although women can be mobilised for change, they cannot act as *their own* agents of change. Women's various rights were "granted by the state", and were *not won* by women themselves.[80] The moralisation of issues such as homosexual relations or prostitution reflects a deeper tendency to adhere to a single version of what a family should be, one in which patriarchal privilege and fealty are cardinal virtues. It has further reinforced the boundaries limiting the possible gender roles of males and females in general,[81] and even students on university campuses,[82] which, arguably, have been the cradle for the avant-garde. Within this broader framework, the Party-state has assumed the role of *pater familias*, reserving the right to dictate moral standards, appropriate modes of personal sexual conduct, the number of children, religious practice and much more.

Similar to their attempt to steer clear of examining topics associated with the sex industry, sociologists in China have also largely avoided the related topics pertaining to same-sex relationships and sexual identity.[83] Scholarship on these themes is scarce, even during the reform years before 2012.[84] The Party-state tends to view issues such as homosexuality and transgender identification as condemnable immorality. During periods of relative openness, voices from the LGBTQ (lesbian, gay, bisexual, transgender and queer) community could be heard, but life has been increasingly difficult for sexual minorities since 2012.[85] Under Xi's leadership, the space for LGBTQ individuals has significantly shrunk.[86]

The conundrum is, of course, not limited to the study of prostitution or human sexuality. There is a general perception that the Chinese lack a rights-conscious orientation to social life and political institutions.[87] Under the omnipresent CPC, human rights are not conceptualised as inherent privileges for all individuals; rather, they are viewed as state-issued awards that can be altered at the state's discretion. The CPC has reinforced a patriarchal tradition that has spanned over 2,000 years—this implies that any licence that one enjoys as a privilege from the authorities could be withdrawn at their discretion. The work of feminist theorists foregrounds the recognition

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[80] Mann, *Gender and Sexuality in Modern Chinese History*.

[81] Huang Lan-Ying and Cao Liqun, "Exploring Sexual Harassment in a Police Department in Taiwan", *Policing* 31 (2008): 324–40.

[82] Qiu and Cheng, "Gender and Power in the Ivory Tower".

[83] Lin Kai and Wang Wenjin, "Changing Public Tolerance for Same-sex Sexual Behaviors in China 2010–2017: A Decomposition Analysis", *Archives of Sexual Behavior* 50 (2021): 3433–45; Tony Huiquan Zhang and Robert Brym, "Tolerance of Homosexuality in 88 Countries: Education, Political Freedom and Liberalism", *Sociological Forum* 34, no. 2 (2019): 501–21.

[84] Luo, Li and Shi, "Sociology of Homosexuality in Twenty-first-century China".

[85] Gong Jing and Liu Tingting, "Decadence and Relational Freedom among China's Gay Migrants: Subverting Heteronormativity by 'Lying Flat'", *China Information* 36, no. 2 (2021): 200–20.

[86] Nicole Hong and Wang Zixu, "With Rainbow Flags, 2 Students Test China's Shrinking L.G.B.T.Q. Space", *The New York Times*, 3 June 2023, at <https://www.nytimes.com/2023/06/03/world/asia/rainbow-flags-china-lgbtq.html> [11 August 2023].

[87] Peter Lorentzen and Suzanne Scoggins, "Understanding China's Rising Rights Consciousness", *The China Quarterly* 22 (2015): 638–57; Dutton, *Policing and Punishment in China*.

that power and influence should be inherent considerations in the study of gender and gender equality.[88] Ignoring these issues is, after all, both politically expedient and calculated. The Chinese government's recent call for female workers to return home has intensified since the implementation of the new two-child policy in 2015. By relegating women to domestic roles, society may be losing half of its intellectual potential.[89] Sociological research on feminism, which was under-researched before the Xi Jinping era, is now viewed either as a menace from the decadent "West" or an entirely foreign phenomenon.[90]

DISCUSSION AND CONCLUSION

Chinese sociology re-emerged under the leadership of reform-minded Deng Xiaoping. However, its revival was not a complete rebirth. While all CPC *apparatchiks*, from top to bottom, acknowledged the need for economic reform, "integrating with the world" in practice meant adopting the *economic* practices of other nations while resisting substantive *political* behavioural or systemic changes. This selective borrowing of ideas from the outside world mirrors the Westernisation Movement (circa 1861–95) of the late Qing dynasty, when foreign technologies were adopted for practical use while Chinese traditions remained the core, or "essence" (*tiyong*). The divide between "application" and "essence" in this context refers to the integration of new technology while maintaining the Qing dynasty's political system—a recurring tension in preserving the status quo. The current debate between indigenisation and Westernisation is merely a modern expression of this resistance to systemic change.

Since its rebirth, empirical sociological research has experienced impressive growth and notable methodological sophistication has taken root.[91] However, sociological insight into contemporary China has not advanced to a significant degree.[92] Similarly, critical sociology has remained "significantly underdeveloped", even during the reform years.[93] Having assumed a subservient consultative rather than an emancipatory and questioning role in relation to the Party-state, the officially sanctioned sociology has largely lost its way in its fixation on empirical methodologies and conceptual arguments confined within narrow boundaries. Thus, sociology during the reform era before Xi was simultaneously prospering and underperforming as an academic discipline. Since then, large quantities of sociological research articles have continued to be pumped

[88] Coraline Jortay, Jennifer Bond and Liu Chang, "Legible and Thus Legitimate? Reading and Blurring Gender in China, Today and Yesterday", *China Perspective* 3 (2020): 5–8.
[89] Zheng, *Violent Intimacy*.
[90] Chaguan, "China's Elites Think Feminism is a Foreign Plot", *The Economist*, 16 June 2022.
[91] Andrew Walder, "The Relevance of China's Transformation for Contemporary Sociology", *Chinese Sociological Review* 44, no. 1 (2011): 8–13.
[92] Zhou Xueguang and Pei Xiaomei, "Chinese Sociology in a Transitional Society", *Contemporary Sociology* 26, no. 5 (1997): 569–72.
[93] Bian and Zhang, "Sociology in China".

out. However, many of these published "feel good" policy articles are largely out of sync with the lived reality of ordinary people.

Under Xi's reign, "socialist sociology with distinctive Chinese characteristics" has been at risk of returning to Orwellian-style governmental control.[94] The Xi regime and the CPC have issued repeated stern warnings against expressing doubts about the central government's policies (*wangyi Zhongyang* 妄议中央), and have prohibited seven specific areas of "Western thinking" (*qi bu jiang* 七不讲) from being taught in classrooms.[95] In addition, select students monitor professors' lectures and report any deviations from the official Party line to the authorities.[96] Good sociology universally requires *Verstehen*—an epistemology that requires a self-critical and open-minded viewpoint from scholars seeking to understand the lived reality of people.[97] In the internet and digital information era, nations should seek to maintain their geographic boundaries, but sociology as an academic discipline should not be confined by boundaries. The boundaries of sociological inquiry should be determined by sociologists themselves, rather than by politicians wielding governmental powers.[98]

As a scientific discipline, sociology in China can and should be "extrapolated"—it should examine social reality with few political restrictions and explore untested options for societal action. It needs to return to its original humanitarian concerns voiced in the 1930s, focusing on the disadvantaged, the socially disfavoured, the marginalised, the accused and the incarcerated,[99] as well as to investigate the denied, the deterred, and the disenchanted in contemporary times. Chinese sociology, like sociology elsewhere, has the potential to be emancipatory and transformative, offering new theoretical insights into the experiential journey towards modernity. It should help humanity achieve a state where individual happiness is found in the construction of a good society[100]—one that is just, secure, fruitful and inclusive. However, the analysis presented here leads the authors to draw a conclusion that the contemporary telos of official Chinese sociology is a loyal subservient entity promoting the perpetuation of Party-state rule. This type of sociology is *sui generis* rather than universal in its ambition.

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[94] See "Zhongban guoban yinfa guanyu jiaqiang xinshidai faxue jiaoyu he faxue lilun yanjiu de yijian" (Opinions on How to Strengthen Education of Law and Its Theory in the New Era, Issued by the General Office of the Communist Party of China Central Committee and the General Office of the State Council), *People's Daily*, 27 February 2023, at <http://politics.people.com.cn/n1/2023/0227/c1001-32631603.html> [11 August 2023].

[95] Cao and Hebenton, "Criminology in China: Taking Stock (Again)".

[96] Ruth and Xiao, "Academic Freedom and China".

[97] Max Weber, *The Methodology of the Social Sciences* (Glencoe, IL: Free Press, 1949).

[98] Andrew Abbott, "Varieties of Normative Inquiry: Moral Alternatives to Politicization in Sociology", *American Sociologist* 49, no. 2 (2018): 158–80.

[99] Cao Liqun and Du Shaochen, "Yi guojihua shiye zuo Zhongguo yanjiu" (China Study in International Perspective), *Qinghua shehuixue pinglun* (*Tsinghua Sociological Review*) 10 (2018): 1–12.

[100] Robert N. Bellah et al., *The Good Society* (New York: Knopf Doubleday Publishing Group, 2011).

Equipped with new AI-assisted surveillance technologies, including "big data mining", "facial recognition", individual citizen tracking and digital surveillance of social media and the social credit system, the Party-state has vastly expanded its control of people in the 21st century.[101] The CPC is militarising society and infusing it with patriotic fervour, reshaping the education system and reinforcing traditional roles for women, and conditioning a new generation of youth to view the West as a mortal enemy in the fight for China's rise. Since Xi assumed power, xenophobia has returned to national prominence, posing challenges to sociologists who wish to achieve a universalistic ideal of offering an independent and often critical voice for a cosmopolitan understanding of humanistic values. Many young Chinese academics have fallen prey to their deteriorating informational ecosystem, becoming victims of its circumscription. Increasingly severe print and online censorship, the rise of semi-closed "WeChat Moments" as the main platform for news dissemination among mainland Chinese,[102] and the incessant production of "patriotic-cum-ideological education" have made it difficult for intellectuals to perceive the outside world accurately. However, so long as the flow of information is not completely cut off, the authors remain sanguine that once the current suppressive political climate is lifted, Chinese sociologists, like their global counterparts, will rise to live up to the expectations of that "sociological imagination" that C. Wright Mills articulated to fellow sociologists about "threescore years and five" ago.

ACKNOWLEDGEMENTS

The authors would like to thank Tony Huiquan Zhang, Jihong Zhao and the two anonymous reviewers for providing helpful suggestions and constructive comments on earlier versions of the manuscript.

[101] Javier C. Hernández, "Professors, Beware. In China, Student Spies Might be Watching", *The New York Times*, 1 November 2019, at <https://www.nytimes.com/2019/11/01/world/asia/china-student-informers.html> [15 December 2022]; Zhang, Xu and Liu, "How do Toothless Tigers Bite? "

[102] Wu Huizhong and Ting Fu, "China Steps up Online Controls with New Rule for Bloggers", *The Diplomat*, 17 February 2021, at <https://thediplomat.com/2021/02/china-steps-up-online-controls-with-new-rule-for-bloggers> [18 December 2022].

Is Olson's Logic Still Relevant? Exploring the Dynamics of Online Collective Action in China with a Mixed-Methods Analysis

CHEN Guiwu and PAN Bihao

This study examines the dynamics of online collective action in China by testing the relevance of Mancur Olson's theory of collective action in the digital realm. Employing a mixed-methods approach that integrates quantitative data analysis from the Chinese General Social Survey and a 2022 high-profile assault event in Tangshan, Hebei province, as a case study, the authors find that digital media, particularly through its informational role, significantly stimulates online collective actions. The mechanism analysis in this article indicates that free-riding opportunities and perceived political efficacy mediate participation. Despite the nuances and new manifestations of the free-rider dilemma, the core principles of Olson's logic remain applicable to the digital world.

INTRODUCTION

While people can participate in social and political activities both individually and collectively,[1] significant differences have been recognised between these two modes of participation.[2] Collective action, in particular, occurs when the combined efforts of two or more individuals or entities are essential to achieve a common goal.[3] However, it is well documented that people's concerns about social and political

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[1] Zhang Xinzhi and Lin Wan-Ying, "Hanging Together or Not? Impacts of Social Media Use and Organisational Membership on Individual and Collective Political Actions", *International Political Science Review* 39, no. 2 (2018): 273–89.

[2] C.J. Pattie and R.J. Johnston, "Conversation, Disagreement and Political Participation", *Political Behavior* 31, no. 2 (2009): 261–85.

[3] Todd Sandler, "Collective Action: Fifty Years Later", Symposium on the 50th Anniversary of Olson's *Logic of Collective Action, Public Choice* 164, no. 3/4 (2015): 195–216.

issues do not necessarily translate into collective action.[4] Olson's logic of collective action elucidates the factors that impede rational individuals from acting collectively. The major obstacle is the free-rider dilemma, the problem of individuals reaping the benefits of the public good produced through the actions of others without making any contribution. These individuals could typically extend to 95 per cent of any population.[5] Such a scenario gives rise to certain key questions, among which are: What motivates the remaining five per cent of the population to participate? What are the factors that drive their decisions?

According to Olson, collective action is typically impossible unless the number of participants is small or selective incentives are provided to overcome the free-rider problem.[6] This perspective is part of rational choice theory, which posits that individuals rationally respond and react to their environment. Consequently, as the environment changes, it is reasonable to expect corresponding changes in human action. One of the significant changes in contemporary society is the advancement of technology, such as that enabled by the internet, which, as Todd Sandler has noted, "provides not only new collective action problems", "but also offers novel means for recognizing and addressing old collective action problems".[7] Given this context, it is essential to investigate how the internet and digital media have transformed the processes and mechanisms of collective action.

Several scholars argue that the contributions of internet-enabled technologies—such as dramatically reduced costs, enhanced organising capability without formal organisations and the ability to coordinate individuals without physical copresence—may increasingly render the traditional logic of collective action theories obsolete. They contend that the sharp reduction in participation costs eliminates what were once significant barriers, thereby diminishing the motivations for individuals to free-ride on the efforts of others. Consequently, the free-rider dilemma is no longer seen as a universal barrier but has become a special case that applies only when the costs of engaging in collective action are high.[8]

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[4] Mancur Olson, *The Logic of Collective Action* (Cambridge, MA: Harvard University Press, 1965); Matthew J. Hornsey et al., "Why Do People Engage in Collective Action? Revisiting the Role of Perceived Effectiveness", *Journal of Applied Social Psychology* 36, no. 7 (2006): 1701–22.

[5] Mark Irving Lichbach, *The Rebel's Dilemma* (Ann Arbor, MI: University of Michigan Press, 1995).

[6] Olson, *The Logic of Collective Action*: "unless the number of individuals in a group is quite small, or unless there is coercion or some other special device to make individuals act in their common interest, *rational, self-interested individuals will not act to achieve their common or group interests"* (p. 2).

[7] Sandler, "Collective Action", p. 197.

[8] Bruce Bimber, Andrew J. Flanagin and Cynthia Stohl, "Reconceptualizing Collective Action in the Contemporary Media Environment", *Communication Theory* 15, no. 4 (2005): 365–88; Jennifer Earl and Katrina Kimport, *Digitally Enabled Social Change: Activism in the Internet Age* (Cambridge, MA: The MIT Press, 2011); W. Lance Bennett and Alexandra Segerberg, "The Logic of Connective Action: Digital Media and the Personalization of Contentious Politics", *Information, Communication & Society* 15, no. 5 (2012): 739–68; Jen Schradie, "The Digital Activism Gap: How Class and Costs Shape Online Collective Action", *Social Problems* 65, no. 1 (2018): 51–74; Zhang Gang et al., "Agent-based Modeling and Life Cycle Dynamics of COVID-19-related Online Collective Actions", *Complex & Intelligent Systems* 8, no. 2 (2022): 1369–87.

Until recently, most research on online collective action has focused on Western countries, with studies from other contexts being relatively scarce. This study aims to fill this gap by examining the theory of collective action in the context of China's digital era. Specifically, it attempts to address the following questions: Has access to the internet and digital media increased participation in online campaigns for the common good? If so, what are the underlying mechanisms? In particular, does the problem of free-riding still matter in digital China? How are selective incentives provided when the information and communication effectively serve as the organising structure?

By employing a mixed-methods approach—combining a quantitative analysis of nationwide survey data from China and a case study of a 2022 high-profile event in the northern city of Tangshan—this study demonstrates that while technology lowers the costs of organisation and participation, these costs are still not negligible. Consequently, the assessment of costs versus benefits remains pivotal, underpinning the free-rider dilemma. Technology does not negate this dilemma; it persists, albeit in a nuanced form. The authors argue that the proliferation of online campaigns underscores the ongoing relevance of the free-rider logic.[9] As such, effective mechanisms to address the free-rider problem over the internet are necessary and warrant further examination. While the free-rider dilemma persists, albeit in a more subtle way, the authors argue that collective action theories remain "well established"[10] and are "still critical, not overturned"[11] in the digital age.

[9] To elucidate this argument, the authors want to make an analogy here. The information asymmetry theory points out that when the degree of information asymmetry is substantially high, the market may fail or even cease to exist. However, markets with extremely high degrees of information asymmetry, such as the used car market, are exceptionally prosperous. This seems to contradict the inference of the applicability of the information asymmetry theory. But in fact, this is only the result of superficial phenomena and preliminary inferences. The reason why the used car market can flourish is not that the problem of information asymmetry does not exist, but that people have designed effective mechanisms to overcome it. This precisely proves from the opposite side the existence of information asymmetry and its importance for market transactions, thus fully demonstrating the explanatory power of Akerlof's information asymmetry theory rather than overthrowing it. Similarly, logically, we can think that the emergence of online collective actions in the internet era does not overthrow the logic of collective action and the free-rider dilemma, but precisely proves and strengthens the explanatory power and importance of these theories. In other words, online collective actions emerge when there are some effective mechanisms behind them. These mechanisms solve the free-rider problem on the internet. Therefore, the essence of the problem lies in the need to explore what these effective mechanisms are and how they operate. George A. Akerlof, "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism", *Quarterly Journal of Economics* 84, no. 3 (1970): 488–500.

[10] Ronald A. Francisco, *Collective Action Theory and Empirical Evidence* (New York: Springer Science & Business Media, 2010).

[11] Schradie, "The Digital Activism Gap".

LITERATURE REVIEW AND HYPOTHESES

The Association between Digital Media Use and Online Collective Action

A growing body of recent studies suggests that collective action has been significantly reshaped by the internet.[12] It is evident that costs have an impact on decisions to participate in collective action. The substantial reduction in costs for online activities has facilitated individuals' engagement with online campaigns, such as signing petitions or discussing social issues, rather than participating in street protests.[13]

However, some scholars argue that the expansion of action opportunities does not always lead to increased participation.[14] While the anonymity and reduced costs associated with digital media may enhance online engagement, they can also create a misleading sense of solidarity and cost-effectiveness, particularly given the risk of internet filtering, digital surveillance and control, which may ultimately inhibit online collective action.[15] It is reasonable to contend that, while lower costs may encourage participation in collective actions, the potential risks of surveillance, suppression or punishment may increase would-be participants' overall cost of participation, whether pecuniary or nonpecuniary, thus acting as an effective deterrent. Consequently, the internet's reduction of costs may not be as beneficial for online collective action as some scholars have claimed, especially when taking into consideration the risk factors. Moreover, the internet's role in facilitating dissent and opposition may be constrained when under the control of governments or other organisations that can also use the same technology to maintain their power.[16] Therefore, in describing the internet's sociopolitical application, the dynamics of online collective action requires a careful and comprehensive investigation of contextual factors.[17]

Under an authoritative regime, it has traditionally been difficult for Chinese individuals to engage in political and civil collective activities due to limited access to information, restricted formal channels for expressing political demands or discontent, and scarce networking opportunities with formal social or political organisations. However, this institutional context has been significantly reshaped by the emergence of the internet and digital media which, despite the existing restrictions, are often less controlled, or at least less controllable, compared to the tight, centralised control over

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[12] Bennett and Segerberg, "The Logic of Connective Action"; Zhang and Lin, "Hanging Together or Not?".

[13] Earl and Kimport, *Digitally Enabled Social Change*.

[14] Bruce Bimber, "Three Prompts for Collective Action in the Context of Digital Media", *Political Communication* 34, no. 1 (2017): 6–20.

[15] Shahla Ghobadi and Stewart Clegg, "'These Days Will Never Be Forgotten …': A Critical Mass Approach to Online Activism", *Information & Organization* 25, no. 1 (2015): 52–71.

[16] Ibid.

[17] Paul DiMaggio et al., "Social Implications of the Internet", *Annual Review of Sociology* 27 (2002): 307–36; Ghobadi and Clegg, "'These Days Will Never Be Forgotten …'".

traditional media.[18] In fact, the Chinese government upholds a pragmatic and contingent attitude towards the internet, managing it in a more balanced manner. While China is committed to promoting the digital industry and encouraging civic expression, it simultaneously attempts to set behavioural norms and regulations for all parties using the internet[19] which provides the Chinese people with a dominant platform to voice their opinions and claim their rights, thereby enabling rational individuals to be mobilised and contribute to a collective action.[20] Operating under the principle that "the law does not punish the many", the individual risk associated with participating in collective actions online is relatively low, especially when compared to the risks involved in offline collective actions.

In the contemporary Chinese context, most actions, whether on- or offline, do not attempt to oppose or challenge the existing political system itself.[21] Instead, individuals participate in online collective actions primarily to demand specific rights or interests, hoping to gain public support, influence government decision-making, or prompt immediate governmental actions against social injustice.[22] Once their demands are satisfied or the triggering events are resolved, these actions cease.[23]

Based on the preceding discussion, it is reasonable to make the following hypothesis:

Hypothesis 1 (H1): *Digital media use is positively related to one's inclination to engage in online collective action.*

Availability of Online Free-riding and its Mediating Effects

Olson's logic of collective action posits that individual rationality does not automatically lead to collective rationality, due primarily to the challenges posed by the free-rider problem. Olson's logical basis for the free-rider problem is rooted in the size of the group. In large group settings, individuals often assume that others would offset their lack of contribution, thereby justifying their decision to free-ride, which may not reflect what they would recognise as their true moral norms.[24] As demonstrated by

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[18] Zhao Yuezhi, *Communication in China: Political Economy, Power, and Conflict* (Lanham, MD: Rowman & Littlefield, 2008).

[19] Xue Ting, Jacquelien van Stekelenburg and P.G. Klandermans, "Online Collective Action in China: A New Integrated Framework", *Sociopedia.isa* (2016).

[20] Lin Fen and Zhang Xinzhi, "Movement–Press Dynamics and News Diffusion: A Typology of Activism in Digital China", *China Review* 18, no. 2 (2018): 33–63.

[21] Lin and Zhang, "Movement–Press Dynamics and News Diffusion"; Xue, van Stekelenburg and Klandermans, "Online Collective Action in China".

[22] Xue, van Stekelenburg and Klandermans, "Online Collective Action in China".

[23] Steven J. Balla, "Information Technology, Political Participation, and the Evolution of Chinese Policymaking", *Journal of Contemporary China* 21, no. 76 (2012): 655–73; Xue, van Stekelenburg and Klandermans, "Online Collective Action in China".

[24] Philippe Fontaine, "Free Riding", *Journal of the History of Economic Thought* 36, no. 3 (2014): 359–76.

Buchanan, due to free-riding, even with comprehensive communication among all individuals facing a large-scale dilemma, the failure to achieve desirable collective results through independent action may persist.[25]

Organisations may address this issue by strategically implementing selective incentives to align individual interests with collective goals. However, some scholars argue that the prevalence of collective action in large-scale settings despite limited interpersonal relationships among individuals contradicts the expectation of widespread free-riding. This suggests the existence of potential mechanisms such as alternative ways to affect individuals' incentives, non-self-interested motivations or actors' misperception of their own interests.[26] An increasing number of online campaigns are being spearheaded by unorganised individuals without the backing of formal organisations, leading some scholars to assert that free-riding is either non-existent or less significant in explaining online collective action.[27] While these explanations seem plausible, it is at least equally likely, if not more so, that people have discovered effective ways to mitigate the problem of free-riding online—a factor that can easily be overlooked. Olson's concept of "selective incentives" represents an approach to overcoming free-riding and can serve as an initial framework for considering various ways to address the problem.[28] The act of free-riding and the provision of opportunities for it are essentially two sides of the same coin—when a surge in online collective action is observed, a more crucial question to consider is what mechanisms have effectively resolved the free-riding dilemma.

Essentially, as Bimber, Flanagin and Stohl have highlighted, the "fundamental solution to the challenges of collective action is not organization, but organizing".[29] In online settings, where information and communication serve as the organising structure, individuals can organise and collaborate without the need for physical presence or formal organisations, hence leading to a surge in online campaigns spearheaded by unorganised individuals.[30] However, there is still a limited understanding of how online collective action is organised, particularly regarding the mechanisms through which various individuals self-organise to achieve their collective goals. According to Marwell and Oliver, group size per se does not solely determine the success of a collective action—a notion supported by the emergence of numerous

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[25] James M. Buchanan, *The Demand and Supply of Public Goods* (Chicago, IL: Rand McNally, 1968).

[26] Russell Hardin and Garrett Cullity, "The Free Rider Problem", The Stanford Encyclopedia of Philosophy (Winter 2020 Edition), at <https://plato.stanford.edu/archives/win2020/entries/free-rider/> [30 April 2024].

[27] Bimber, Flanagin and Stohl, "Reconceptualizing Collective Action in the Contemporary Media Environment"; Earl and Kimport, *Digitally Enabled Social Change*; Bennett and Segerberg, "The Logic of Connective Action".

[28] Fontaine, "Free Riding".

[29] Bruce Bimber, Andrew Flanagin and Cynthia Stohl, *Collective Action in Organizations: Interaction and Engagement in an Era of Technological Change* (Cambridge: Cambridge University Press, 2012), p. 5.

[30] Earl and Kimport, *Digitally Enabled Social Change.*

online campaigns.[31] A subset of group members who are either highly interested or possess significant resources plays a pivotal role, especially in the initial stages of collective action.[32] Through the internet, these individuals often assume the role of defining and framing social issues, thereby becoming providers of digital content, which in turn connects and convenes interested and resourceful potential participants in an autonomous, interactive process.[33] In essence, the authors contend that these content providers are the free-ride enablers as envisioned by Olson. Typically, digital content providers disseminate their posts and opinions freely, facilitating free-riding by allowing audiences to engage with the content—such as reading, sharing and commenting—without incurring fees. This is essential for catalysing online collective action. Therefore, digital content providers act as the de facto organisers for online collective action by enabling free-riding. In other words, the issue is not that the free-riding dilemma does not exist, as some scholars have suggested,[34] but that it has evolved, making its solution more challenging to identify rather than making free-riding obsolete.

Why do content providers permit free-riding? Who actually covers the costs of the selective incentives in this scenario? These second-order dilemmas must be addressed to provide a logically coherent explanation. First, it is undeniable that some individuals are motivated by altruism, duty or solidarity.[35] Consequently, these content providers willingly devote themselves to writing detailed posts that express their concerns about social issues. In digitally mediated social networks, Benkler maintains, personally expressive content, once shared and recognised by others, transforms into outward-flowing self-motivated participation, encouraging others to engage in similar sharing activities.[36] Second, most content providers can earn significant sums by monetising internet traffic efficiently,[37] specifically by embedding commercial advertisements in their posts on social issues to generate profit.[38] This allows them to leverage advertising

[31] Gerald Marwell and Pamela Oliver, *The Critical Mass in Collective Action: A Micro-Social Theory* (Cambridge: Cambridge University Press, 1993).

[32] Ibid.

[33] Ana Cardoso, Marie-Claude Boudreau and João Álvaro Carvalho, "Organizing Collective Action: Does Information and Communication Technology Matter?", *Information and Organization* 29, no. 3 (2019): 100256.

[34] Earl and Kimport, *Digitally Enabled Social Change*.

[35] Lars Udéhn, "Twenty-five Years with *The Logic of Collective Action*", *Acta Sociologica* 36, no. 3 (1993): 239–61.

[36] Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (New Haven, CT and London: Yale University Press, 2006).

[37] Liao Meng-jie et al., "Simulation Research on Online Marketing Strategies of Branded Agricultural Products Based on the Difference in Opinion Leader Attitudes", *Information Processing in Agriculture* 8, no. 4 (2020): 528–36.

[38] Maurizio Naldi and Giuseppe D'Acquisto, "When Free Riding is the Best Choice: The Case of Network Charges for Content Providers", paper presented at the Proceedings of the Ninth International Conference on Network and Service Management (CNSM 2013), Zurich, Switzerland, 14–18 October 2013, pp. 304–9.

revenue on media platforms to offset costs and generate income. In most cases, people tend to support companies that act ethically and exhibit social responsibility by patronising businesses whose values align with their own.[39] Such support provides an economic incentive for the provision of free content, a rationale that this article will further elucidate.

In contemporary China, digital content providers, particularly influential key opinion leaders known as "big Vs"[40] on social media platforms, have become pivotal in facilitating online participation. These "big V" individuals, verified by the platforms as prominent figures, often boast of followers from the hundreds of thousands to tens of millions, who are inclined to engage with the digital content they disseminate—effectively availing themselves of the free digital content provided. The information shared by these netizens can swiftly become a focal point of public discourse, potentially catalysing consensus or mobilising action. Such decentralised online communication amplifies the public's voice and influence, while concurrently posing a challenge to the government's traditional authority over public discourse.[41] It is therefore plausible that the greater the influence of netizens online, whether they are key opinion leaders or regular users, the higher the prevalence of freely available content on social issues can be. To summarise, then, the abundance of free content increases opportunities for free-riding, which can in turn facilitate the emergence and development of online collective action.[42] Thus, the authors propose

Hypothesis 2 (H2): *Online free-riding made possible by digital content providers positively mediates the relationship between digital media use and the propensity for online collective action.*

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[39] Lauren Copeland and Shelley Boulianne, "Political Consumerism: A Meta-analysis", *International Political Science Review* 43, no. 1 (2022): 3–18.

[40] In the Chinese context, the term "big Vs" (Da "V") refers to influential users on social media platforms who have a large following. These individuals often have their accounts verified with a "V" symbol, indicating that they have passed the platform's authentication process, similar to "verified" accounts on platforms like Twitter (now known as "X").

[41] Xue, van Stekelenburg and Klandermans, "Online Collective Action in China".

[42] The distinction between government-affiliated and grassroots voices on social media platforms such as Weibo is not always clear-cut. The Chinese government may nurture influential key opinion leaders, who can generate content that not only stimulates public engagement but also aligns with broader state objectives. While all media in China is subject to governmental control or, at least, monitoring, social media allow for a more dynamic and interactive public discourse. Moreover, government-affiliated and grassroots voices are not always antagonistic. Such a dynamic complicates the traditional dichotomy between government and non-government voices. Admittedly, due to the complexity of the reality and limited data availability, the authors will not investigate the interplay between these forces and their specific roles in shaping online collective action. Nevertheless, it can be asserted that the more influence netizens exhibit online, the more extensive the availability of free digital content, thereby increasing the likelihood of shaping public discourse and potentially driving collective action. The authors thank the anonymous reviewers for bringing this point to their attention.

Perceived Efficacy and its Mediating Effects

Implicit in Olson's logic of collective action is the notion that the provision of selective incentives to overcome the free-riding dilemma explains when people are likely to act collectively, but it cannot indicate which individuals are most likely to do so.[43] Mechanisms rarely operate in isolation.[44] To comprehensively account for how online collective action works, as Bimber argues,[45] a combination of structural- and individual-level models is necessary. Research has noted that one's perception of efficacy emerges as a key motivator of action. For example, political efficacy has been widely recognised as a strong predictor of public participation.[46] While, analytically, political efficacy has been divided into two dimensions (internal and external), empirically, how the two dimensions are related is unclear.[47] Of greater concern is how they are measured. The following discussion demonstrates that external efficacy may be a more important predictor for collective participation in China.

In today's China, collective actions are rarely based on formal organisations; instead, they are primarily event-driven, self-directed, decentralised and flattened (i.e. without a fixed hierarchy).[48] Information disseminated over the internet can become the focus of public opinion and spark national discussion, potentially leading to further consensus or action mobilisation, yet its influence remains subject to government control.[49] Additionally, as mentioned earlier, most of these actions do not attempt to oppose or challenge the existing political regime or the central government.[50] In fact, people participate in collective action with the expectation that online collective efforts can influence government responses and actions.[51] The success or failure of online collective action is therefore determined by whether the government pays attention to online opinion and how it responds. In this sense, one's perception of political efficacy, enabled by digital media, depends largely on the belief that digital media can make the government more responsive, which can be characterised as external efficacy. The greater the perceived government responsiveness to digital media and the perceived effectiveness of individual actions in enacting change, the higher

[43] Bimber, "Three Prompts for Collective Action in the Context of Digital Media".

[44] Doug McAdam, Sidney Tarrow and Charles Tilly, *Dynamics of Contention* (Cambridge: Cambridge University Press, 2004).

[45] Bimber, "Three Prompts for Collective Action in the Context of Digital Media".

[46] Chen Chao, Bai Yu and Wang Rui, "Online Political Efficacy and Political Participation: A Mediation Analysis Based on the Evidence from Taiwan", *New Media & Society* 21, no. 8 (2019): 1667–96.

[47] Michael E. Morrell, "Survey and Experimental Evidence for a Reliable and Valid Measure of Internal Political Efficacy", *Public Opinion Quarterly* 67, no. 4 (2003): 589–602.

[48] Lin and Zhang, "Movement–Press Dynamics and News Diffusion"; Xue Ting and Jacquelien van Stekelenburg, "When the Internet Meets Collective Action: The Traditional and Creative Ways of Political Participation in China", *Current Sociology* 66, no. 6 (2018): 911–28.

[49] Xue and van Stekelenburg, "When the Internet Meets Collective Action".

[50] Lin and Zhang, "Movement–Press Dynamics and News Diffusion"; Xue, van Stekelenburg and Klandermans, "Online Collective Action in China".

[51] Xue, van Stekelenburg and Klandermans, "Online Collective Action in China".

the inclination to participate in online collective action.[52] Thus, the authors propose the following hypothesis:

Hypothesis 3 (H3): *Perceived political efficacy positively mediates the relationship between digital media use and online collective action.*

EXPLAINING ONLINE COLLECTIVE ACTION: A QUANTITATIVE ANALYSIS

Data

The authors conduct a quantitative analysis using data from the 2017 Chinese General Social Survey (CGSS2017), which is representative of the Chinese population. This nationwide survey, released in October 2020, employs a multistage stratified sampling strategy and includes 12,582 observations across 783 variables. Within the survey, questions regarding individual internet use by adults aged 18 or older were presented in two specific modules: CORE module A and module C, the latter focusing on the network society. These data enable a systematic analysis of the effects of digital media use on the formation of online collective action and an assessment of the relevance of Olson's logic in the Chinese context. After excluding observations with missing values, 3,424 valid observations were obtained.

Measures

Dependent variables

The dependent variable is online collective action—broadly defined as a shared endeavour through which individual users collaborate on the internet towards a common goal. Participation in these actions can take various forms, such as petitioning, posting on relevant topics, and engaging in action such as granting of attention, likes, sharing and commenting. The survey included two questions related to the dependent variable. The first question asks: "Would you participate in or support online actions initiated by others to defend rights?", and provides respondents with the following four options: (1) "No, I am not familiar with the use of the internet"; (2) "No, the internet does not have particular advantages in defending rights"; (3) "Yes, I will participate in the rights-defending actions personally"; and (4) "Yes, I will mobilise my acquaintances and friends to participate in the actions". Based on these responses, the variable *Collaction* (propensity for online collective action) was created and coded sequentially. The second question asks: "How often have you joined an online action, such as defending your own rights or upholding justice for others through the internet?", and utilises a five-point Likert scale that ranges from 1="Never" to 5="Always". The

[52] Hornsey et al., "Why Do People Engage in Collective Action?".

variable *Onactfreq* (the frequency of online action) was correspondingly generated and coded based on these responses.

Admittedly, neither *Collaction* nor *Onactfreq* accurately measures online collective action. The former variable pertains to the propensity to participate in online collective actions and does not guarantee actual participation. However, the intention is highly positively related to participatory behaviour; individuals who express an intention to engage in collective action can be assumed to be more likely to act upon it, compared to those who do not express such an intention.[53] Thus, the propensity to participate is considered a helpful and important indicator for this study. The latter variable, *Onactfreq*, is directly associated with actual online actions but may encompass both collective and individual acts. Distinguishing between these two types of actions within the data set is however not feasible. Therefore, to make the best use of the available data, the authors adopt *Collaction* as the baseline measure, with *Onactfreq* serving as a supplementary, more robust test.

Independent variables

The survey includes a total of 11 questions related to respondents' use of digital media, the independent variable of interest. Two types of questions are adopted: open questions with numeric answers (e.g. "How long have you been using the internet?") and ordinal questions that require respondents to select from statements that best describe their behaviour (e.g. "How often do you comment on other people's posts?"). Numeric answers are recoded as binary variables, with 1 representing a value greater than zero and 0 indicating a value of zero. Ordinal answers are similarly recoded as binary, with 1 signifying an affirmative response to the item and 0 representing a non-affirmative response. For baseline analysis, the authors created a summative index for the overall measure (*digmed)* by combining the 11 variables.[54] For further subdimension analysis, the authors performed regression using these variables.

Mediating variables

The authors applied two mediators to examine the underlying connections. The first mediator is the possibility of free-riding. Due to the data availability, the authors utilised the perception of the domination of key opinion leaders (big Vs in the Chinese social media context) and netizens on the internet as agent variable (*frprovider*). This is measured by the question: "Which group of forces do you think is dominant over the internet?" The possible responses include the government, big Vs and ordinary netizens, and "others" (e.g. "don't know" and "refuse to answer"). The variable *frprovider* is coded as 1 if the response involves big Vs and netizens, and 0, if otherwise.

[53] Pattie and Johnston, "Conversation, Disagreement and Political Participation".

[54] Kim Yonghwan and Chen Hsuan-Ting, "Social Media and Online Political Participation: The Mediating Role of Exposure to Cross-Cutting and Like-minded Perspectives", *Telematics and Informatics* 33, no. 2 (2016): 320–30.

The greater dominance of big Vs and netizens on the internet leads to a higher likelihood of free provision of informational posts and argumentative comments about social issues, thereby increasing the likelihood of individuals being mobilised to participate in collective actions related to those issues.

The second mediator is the perception of the relationship between the government and the public, which has been restructured by the internet (*efficacy*). The related question is "Do you agree or disagree with the following statement: The internet makes government officials care more about what the public think?" This question measures the perception level. Respondents specify their level of agreement on a five-point Likert scale that ranges from 1="Strongly disagree" to 5="Strongly agree". The mediator is coded accordingly.

Control variables

The authors incorporated several control variables, including gender, age, education, CPC membership (*cpcmember*), household registration (*cityhukou*, indicating whether respondents hold a rural or urban *hukou*) and socio-economic status (*ecostatus*). Province is also included as a covariate to control for regional effects.

The summary statistics for the main variables are reported in Table 1.

TABLE 1
Summary Statistics of the Main Variables

Variables	N	Mean	SD	Min	Median	Max
collaction	3,424	1.68	0.938	1	1	4
onlinefreq	2,134	1.89	0.975	1	2	5
digmed	3,424	5.70	4.706	0	7	11
frprovider	3,424	0.31	0.463	0	0	1
efficacy	3,424	3.60	0.803	1	4	5
age	3,424	49.78	16.712	18	50	103
gender	3,424	0.49	0.500	0	0	1
edu	3,424	5.37	3.260	1	4	13
cityhukou	3,424	0.48	0.499	0	0	1
cpcmember	3,424	0.11	0.318	0	0	1
ecostatus	3,424	3.75	0.882	1	4	5

Regression results

Given that the dependent variable of interest is ordinal, this article employs an ordered probit model as the baseline regression approach. To ensure the robustness of the results, the data were also analysed using standard ordinary least squares (OLS) regression with robust standard errors. Table 2 reports the results.

Columns 1 and 2 of Table 2 present the baseline results from the ordered probit models. The results show that digital media use is positively and significantly associated with an individual's propensity to participate in online collective action (*Collaction*).

Specifically, for a one-unit increase in digital media use, the odds of high online participation compared to the combined middle and low categories are 1.206 times greater, while holding all other variables in the model constant. Similarly, the odds of the combined middle and high categories versus the low are also 1.206 times greater, when all other variables in the model are held constant. As a robustness check, the model was tested with an alternative measure of the dependent variable, *onlinefreq*. The findings indicate that digital media use continues to have a positive and statistically significant association with actual online actions. In addition, columns 3 and 4 of Table 2 report the corresponding results of the OLS estimation, which are close to those of the ordered probit regression. Overall, the regression results remain robust across different model specifications and various measures of the dependent variable, thus affirming hypothesis H1 that digital media play a significant role in fostering individuals' participation in online collective action.

To ascertain which dimension of digital media use exhibits the strongest explanatory power, this article includes the 11 subdimensional variables that contributed to the creation of the summative index for the overall measure of digital media use; the results are presented in columns 5 and 6 of Table 2. Only the subdimensions related to informational skills—such as website searching, information access and screening, and using social media to post opinions—consistently show high explanatory value for online collective action. By contrast, variables such as duration and frequency of internet use do not appear to have an effect on the outcome. This implies that information and communication are crucial for the emergence, organisation and participation in online collective action, a finding consistent with past research that highlights the role of social media in transforming individuals from passive news recipients to active information seekers, framers and disseminators.[55]

As a final step, a mediation analysis was conducted to uncover the mechanisms through which digital media use influences online collective action. A generalised structural equation model (GSEM) was employed to test for meditating effects, since the mediators are categorical variables. The results are detailed in Table 3. Both mediators were found to impact online collective action significantly. For *collaction*, the coefficient of *frprovider* is positive and statistically significant (b=0.218, p<0.001), while the coefficient for *efficacy*, although smaller, is also statistically significant (b=0.0503, p<0.01). For *onlinefreq*, the coefficient for *frprovider*, despite being relatively smaller, remains statistically significant (b=0.103, p<0.05), and the coefficient for *efficacy* is significant at an acceptable level (b=0.0414, p<0.1). When both mediators are included in the same model, similar results are observed. Thus, hypotheses H2 and H3 are supported: both the perceived availability of free-riding opportunities and perceived political efficacy act as positive mediators in the relationship between digital media use and online collective action.

[55] Xue and van Stekelenburg, "When the Internet Meets Collective Action".

TABLE 2
REGRESSION RESULTS

	(1) Oprobit collaction		(2) Oprobit onlinefreq		(3) OLS collaction		(4) OLS onlinefreq		(5) Oprobit collaction		(6) Oprobit onlinefreq	
	b	**se**	**b**	**se**	**b**	**se**	**b**	**se**	**b**	**se**	**b**	**se**
digmed	1.2060***	0.0111	1.1802***	0.0181	1.0841***	0.0047	1.1056***	0.0120				
Internetuse									1.0194	0.0384	0.9877	0.0368
netuse_ftime									0.9477	0.0389	0.9868	0.0389
reading									1.0004	0.0002	1.0005*	0.0002
netuseyear									1.0213***	0.0060	1.0081	0.0059
nettime									0.9988	0.0016	0.9994	0.0016
webbrowse									1.2854**	0.1211	1.2087*	0.1121
appuse									1.2316*	0.1195	1.1158	0.1068
infosearch									1.5525***	0.1566	1.4197***	0.1408
infoscreen									1.2566**	0.0903	1.3510***	0.0971
expression									1.3200***	0.1091	1.1782*	0.0968
onlinepay									1.0511	0.0796	1.0893	0.0823
age	0.9838***	0.0022	0.9848***	0.0025	0.9904***	0.0012	0.9880***	0.0019	0.9866***	0.0028	0.9863***	0.0028
gender	0.9996	0.0467	1.0079	0.0502	0.9958	0.0248	1.0130	0.0399	1.0055	0.0548	1.0190	0.0552
edu	1.0463***	0.0100	1.0232*	0.0102	1.0455***	0.0058	1.0209*	0.0082	1.0394***	0.0114	1.0181	0.0111
cityhukou	1.0173	0.0598	1.0106	0.0627	0.9928	0.0313	1.0073	0.0495	0.9092	0.0622	0.9611	0.0648
cpcmember	1.1011	0.0823	1.0384	0.0827	1.0118	0.0430	1.0073	0.0643	0.9939	0.0852	1.0138	0.0867
ecostatus	0.9605	0.0268	0.9395*	0.0283	0.9785	0.0144	0.9610	0.0228	0.9841	0.0324	0.9504	0.0313
province	YES		YES		YES		YES		YES		YES	
N	3,424		2,134		3,424		2,134		1,826		1,824	
pseudo R^2	0.284		0.091						0.148		0.092	
chi^2	2,096.7		485.6						695.2		425.5	

Notes: b: the coefficient. se: robust standard errors. † $p<0.1$, * $p<0.05$, ** $p<0.01$, *** $p<0.001$

TABLE 3
GENERALISED STRUCTURAL EQUATION MODEL (GSEM) REGRESSION: TESTING MEDITATION EFFECTS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	frprovider	**efficacy**	**collaction**	**onlinefreq**	**collaction**	**onlinefreq**	**collaction**	**onlinefreq**
frprovider			0.218***	0.103*			0.215***	0.101*
			(0.0293)	(0.0412)			(0.0293)	(0.0412)
efficacy					0.0503**	0.0414†	0.0460**	0.0396†
					(0.0154)	(0.0240)	(0.0153)	(0.0240)
digmed	0.0236***	0.0167***	0.0756***	0.0972***	0.0799***	0.0993***	0.0749***	0.0962***
	(0.00249)	(0.00478)	(0.00432)	(0.0109)	(0.00430)	(0.0108)	(0.00432)	(0.0109)
age	–0.00552***	0.000914	–0.00849***	–0.0113***	–0.00974***	–0.0122***	–0.00855***	–0.0114***
	(0.000675)	(0.00129)	(0.00117)	(0.00196)	(0.00116)	(0.00194)	(0.00117)	(0.00196)
gender	–0.0158	–0.0189	–0.000722	0.0142	–0.00321	0.0135	0.0000906	0.0148
	(0.0143)	(0.0275)	(0.0246)	(0.0390)	(0.0247)	(0.0390)	(0.0246)	(0.0390)
edu	0.00907**	0.00979	0.0425***	0.0201*	0.0440***	0.0206*	0.0421***	0.0200*
	(0.00319)	(0.00612)	(0.00547)	(0.00799)	(0.00550)	(0.00799)	(0.00547)	(0.00798)
cityhukou	0.0238	–0.117***	–0.0124	0.00406	–0.00131	0.0109	–0.00692	0.00760
	(0.0182)	(0.0348)	(0.0311)	(0.0487)	(0.0314)	(0.0487)	(0.0311)	(0.0487)
cpcmember	–0.0185	0.0399	0.0157	0.0108	0.00971	0.00525	0.0138	0.00880
	(0.0245)	(0.0470)	(0.0420)	(0.0632)	(0.0422)	(0.0633)	(0.0419)	(0.0632)
ecostatus	–0.00133	–0.0724***	–0.0214	–0.0402	–0.0181	–0.0370	–0.0181	–0.0376
	(0.00845)	(0.0162)	(0.0145)	(0.0235)	(0.0146)	(0.0236)	(0.0145)	(0.0235)
province	YES	YES	YES	YES	YES	YES	YES	YES
N	3,424	3,424	3,424	2,134	3,424	2,134	3,424	2,134

Notes: Robust standard errors in parentheses. † $p<0.1$, * $p<0.05$, ** $p<0.01$, *** $p<0.001$

CASE STUDY: THE 10 JUNE 2022 TANGSHAN RESTAURANT ASSAULT EVENT

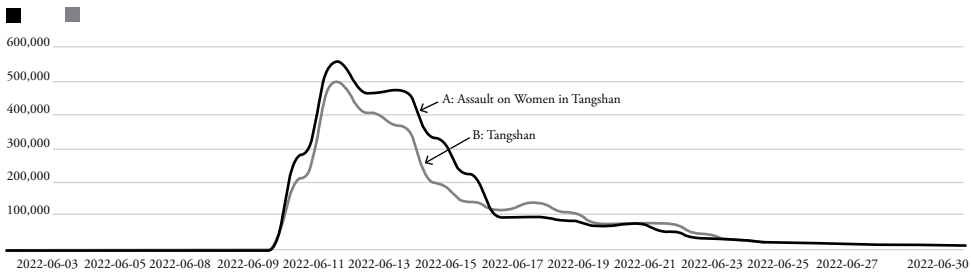
The authors conducted a case study in order to provide an additional robustness check for the preceding quantitative analysis and to explain factors that are not operationally quantifiable.[56] The case study is a recent high-profile brutal assault on women in a restaurant in Tangshan, an industrial, port city in Hebei province (hereafter the Tangshan event). The case vividly illustrates the underlying logic of the preceding quantitative analysis and highlights the importance of free-riding mechanisms in online collective action.

Background of the Tangshan Event

On 10 June 2022, at around 2.40am, four women were brutally assaulted by several men at a restaurant in Tangshan, The incident was captured on video and posted on Weibo, a Twitter-like social media platform with 582 million active users in China, at about 3.30am. The video, approximately five minutes long, sparked a nationwide heated discussion about the protection of women and public security. In the first wave of anger, millions of women expressed their indignation on Weibo, stating, "it could be me, the victim of an assault". The incident was soon magnified into a national event, with journalists, students, celebrities, scholars, lawyers and many others voicing their concerns by posting microblogs, and then retweeting and commenting on microblogs. By 16 July 2022, search volumes for the keyword "brutal assault on women" had reached approximately 4.69 billion, and 4.142 million netizens had actively participated in the discussion of the issue on Weibo. Similarly, digital content providers engaged more than 1.26 billion netizens, both in China and abroad, in spreading news and discussing the assault. As a result, posts regarding the Tangshan event went viral on WeChat's Moments (similar to the "Wall" on Facebook), a platform with over 1.2 billion active users in China. In addition, the search index for "Tangshan" and "Assault on Women in Tangshan" by Baidu, China's internet search engine (similar to Google), hit a record high for national outrage over gender-based violence (Figure 1). In response to the emerging online opinion, the local government initiated a two-month campaign against organised and gang-related crimes. Twenty-eight people involved in the attack were eventually imprisoned and the main perpetrator was sentenced to 24 years in jail.

[56] R. Burke Johnson, Anthony J. Onwuegbuzie and Lisa A. Turner, "Toward a Definition of Mixed Methods Research", *Journal of Mixed Methods Research* 1, no. 2 (2007): 112–33; Tucker Van Aken and Orion Lewis, "The Political Economy of Noncompliance in China: The Case of Industrial Energy Policy", *Journal of Contemporary China* 24, no. 95 (2015): 798–822.

Figure 1. Baidu Search Index for "Tangshan" and "Assault on Women in Tangshan"



Note: The Baidu Search Index reflects the level of attention and ongoing changes in internet users' search interest for specific keywords. The x-axis represents dates, while the y-axis represents an index-based value that indicates the search frequency of a particular keyword on Baidu.
Source: See <https://index.baidu.com/v2/main/index.html#/trend/%E5%94%90%E5%B1%B1?words=%E5%94%90%E5%B1%B1,%E5%94%90%E5%B1%B1%E6%89%93%E4%BA%BA> [11 October 2024].

Case Analysis

The Tangshan case serves as a stark example of the characteristics and mechanisms that underlie the emergence and development of online collective actions, especially those that arise without organisational-based mobilisation.

First, it was an event-driven internet phenomenon that relied highly on online public opinion, yet no one deliberately guided or manipulated the process. There were no event entrepreneurs or any obvious opinion leaders.[57] In the online context, the focus should be on the activity of "organising" rather than the "organisation" itself. According to Weibo, the hashtag #Tangshan attack# garnered 505,000 original posts, mainly contributed by big Vs. By July 31, 2022, these posts had been read 4.73 billion times and discussed 4.191 million times. However, no individual has been identified as the primary host of the hashtag. Throughout the entire process, technology-enabled networking and the interactive communication capability of social media, rather than a centralised organisation, have served as an organising structure.[58] As Table 4 shows, posts regarding the Tangshan event were the most read for the accounts sampled, with the exception of one (清南师兄, *qingnan shixiong*), when compared to their average monthly reads prior to the event. Additionally, all the accounts had previously posted discussions about heated social issues, indicating that these content providers consistently seek to gain influence and offer their content freely. Such behaviour is key to the emergence of online collective actions and further validates the findings of the quantitative analysis, which underscores the critical role of online free-riding opportunities in fostering such movements.

Second, while the authors acknowledge that some individuals may post their opinions on social issues out of a sense of moral duty, the sample data appear to

[57] Lin and Zhang, "Movement–Press Dynamics and News Diffusion".
[58] Bennett and Segerberg, "The Logic of Connective Action"; Lin and Zhang, "Movement–Press Dynamics and News Diffusion".

suggest that economic incentives could be the primary motivation for some posts. Due to data limitations, it is not possible to examine the intrinsic motivations of digital content providers. However, the case study analysis compensates partially for the shortcomings of the quantitative testing by allowing inferences of the economic motivations behind the posting behaviour, thus addressing the second-order problem of the free-riding dilemma. While 55 per cent of company accounts and one-third of individual accounts (Table 4) did not attempt to monetise their posts on the Tangshan event by embedding commercial ads or enabling WeChat rewards options, over 94 per cent of accounts aimed to secure economic rewards through their posts before or after the event. Notably, only one account did not directly seek economic rewards via advertising or tips; however, it offered a contact option for potential future business cooperation. This suggests that, contrary to appearances, free content providers are not entirely altruistic. Instead, as the theory of the two-sided market illustrates, they may receive economic benefits from various sources, including followers. Therefore, the new mechanism to counteract the free-rider problem is often linked to a broader array of business incentives.

Third, the proliferation of tens of millions of original posts about the Tangshan event was instrumental in sparking a national discussion on the protection of women and public security. A prominent hashtag, "#Tangshan Event Brazenly Challenging the Law", hosted by the newspaper *Jinan Times*, garnered 52,000 original posts, contributed chiefly by influential figures, or the "big Vs". These posts were read 730 million times and discussed over 6.26 million times. However, in order to encourage people to participate in collective online discussion, and to transfer and share original posts, the mere provision of freely available information about a social issue is inadequate; the posts about the event cannot go viral on their own, unless they are read by and have touched the hearts of countless netizens, who will comment on and retweet the original posts. One reason for an individual to do so may be the evocation of sympathetic emotions, which can create a sense of shared grievances among the public.[59] Evidence of such a poignant expression is the lament for justice of a Weibo user with the handle BaobaomaoDaren, "I am a woman and I have a daughter. As I contribute value to society and spread positive energy, can I expect this society to protect my child and me?" This is also a finding that emerged from the case study analysis, which was not addressed in the quantitative analysis. Another reason for an individual to participate in online collective action is related to the perceived efficacy or effectiveness of the internet context,[60] which is consistent with the findings in the qualitative analysis. Numerous posts and comments urged the local government to take firm measures against organised crime syndicates. These content or comment posters believe they are offering support to the victims and that they can rally broader

[59] Carol Soon and Cho Hichang, "OMGs! Offline-based Movement Organizations, Online-based Movement Organizations and Network Mobilization: A Case Study of Political Bloggers in Singapore", *Information, Communication & Society* 17, no. 5 (2014): 537–59.

[60] Hornsey et al., "Why Do People Engage in Collective Action?".

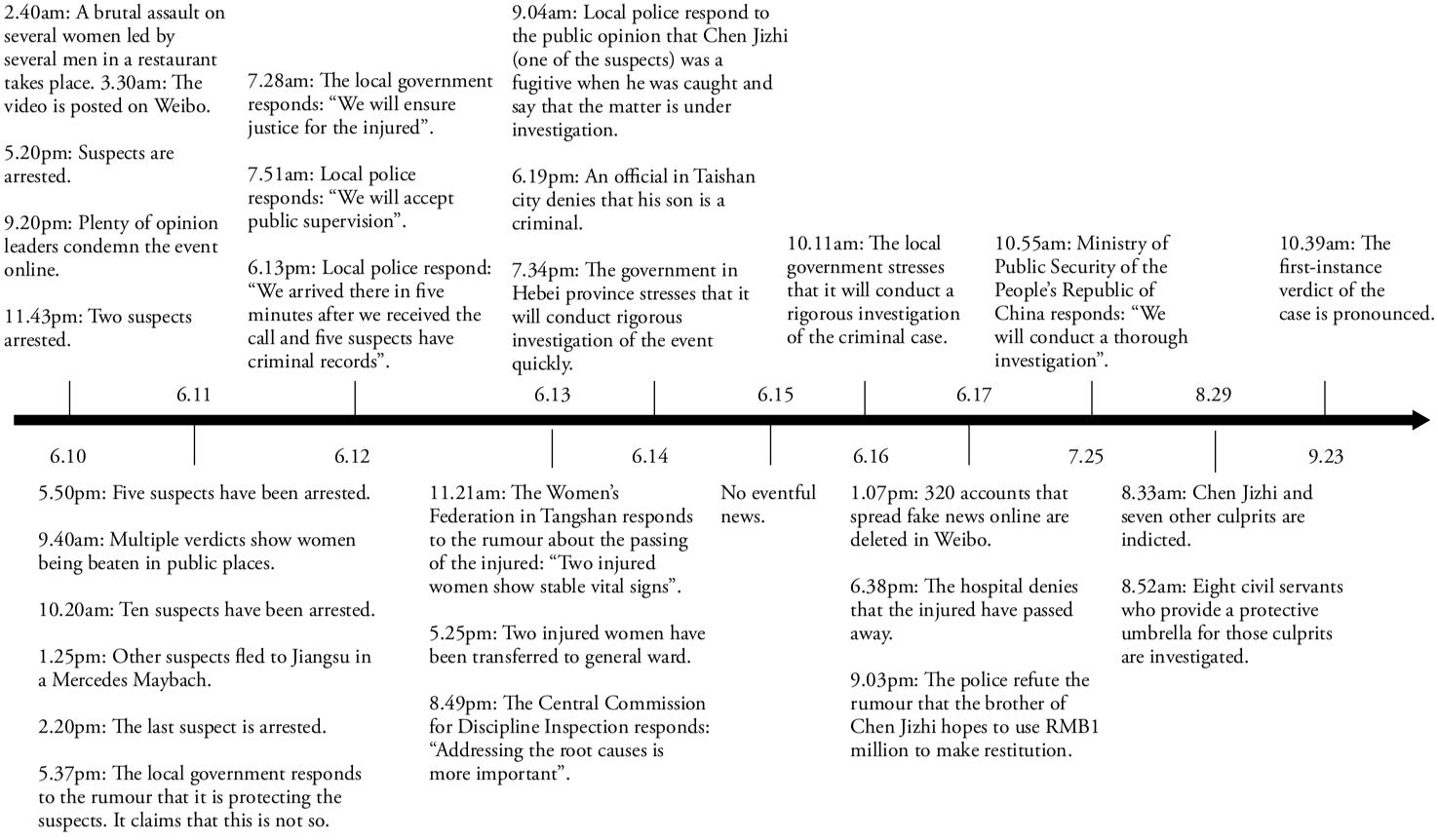
TABLE 4
TOP WECHAT ACCOUNTS WITH POSTS ON THE 10 JUNE TANGSHAN RESTAURANT ASSAULT EVENT

Account name	Post date (month/date)	Reads	Recommends	Likes	Monthly average reads before the post	Ever posted or reposted a hot topic before	WeChat reward	Frequency of embedded ads in the post	Company (C) or individual (I) account	Ever advertised or turned on WeChat reward before?	Advertise or enable WeChat reward after the event?
表达学堂 (*Biaoda xuetang*)	6.10	100k+	1,467	5,523	2,531	YES	NO	0	C	YES	YES
黎兜兜 (*Li doudou*)	6.10	100k+	8,013	15.6k	53.6k+	YES	NO	0	C	YES	YES
逆刘而上 (*Niliu ershang*)	6.10	100k+	666	1,780	17.4k+	YES	NO	0	C	YES	YES
原来是柒公子 (*Yuanlai shi qigongzi*)	6.10	100k+	2,769	5,540	62.8k+	YES	NO	1	C	YES	YES
壹读君 (*Yi dujun*)	6.11	100k+	978	1,643	34.7k+	YES	NO	1	C	YES	YES
弹妹 (*Anti Tanmei Anti*)	6.11	100k+	2,497	5,037	40.5k+	YES	NO	1	C	YES	YES
捡书姑娘 (*Jianshu guniang*)	6.11	100k+	2,232	4,034	54.8k+	YES	NO	0	C	YES	YES
InsGirl	6.11	100k+	5,721	7,928	71.9k+	YES	NO	0	C	NO	NO
女神书馆 (*Nüshen shuguan*)	6.11	100k+	1,260	2,386	46k+	YES	YES	0	C	YES	YES
Leon 在路上 (*Leon zailushang*)	6.11	100k+	414	754	15.5k	YES	NO	0	C	YES	YES

TABLE 4 (*cont'd*)

Account name	Post date (month/date)	Reads	Recommends	Likes	Monthly average reads before the post	Ever posted or reposted a hot topic before	WeChat reward	Frequency of embedded ads in the post	Company (C) or individual (I) account	Ever advertised or turned on WeChat reward before?	Advertise or enable WeChat reward after the event?
原来是柒公子（*Yuanlai shi qigongzi*)	6.11	100k+	1,129	2,707	63.7k+	YES	NO	1	C	YES	YES
水木丁 (*Shuimu ding*)	6.11	100k+	937	1,683	18.8k+	YES	YES	2	I	YES	YES
为你写一个故事（*Wei ni xie yige gushi*)	6.11	100k+	5,177	8,043	89.3k+	YES	NO	0	I	YES	YES
吾星星（*Wu xingxing*)	6.11	100k+	617	2,223	28.6k+	YES	YES	3	I	YES	YES
周冲的影像声色 (*Zhouchong de yingxiang shengse*)	6.11	100k+	9,822	19.1k	49.2k+	YES	NO	0	I	YES	YES
清南师兄 (*Qingdao shixiong*)	6.11	100k+	1,760	1,023	100k+	YES	YES	0	I	YES	YES
后沙月光 (*Housha yueguang*)	6.11	100k+	2,888	6,806	67.9k+	YES	YES	0	I	YES	YES

Figure 2. Timeline of the 10 June 2022 Tangshan Restaurant Assault Event



support from their social networks and the general public. They are also convinced that collective online actions could influence government decisions, and sway governmental responses and subsequent actions.[61]

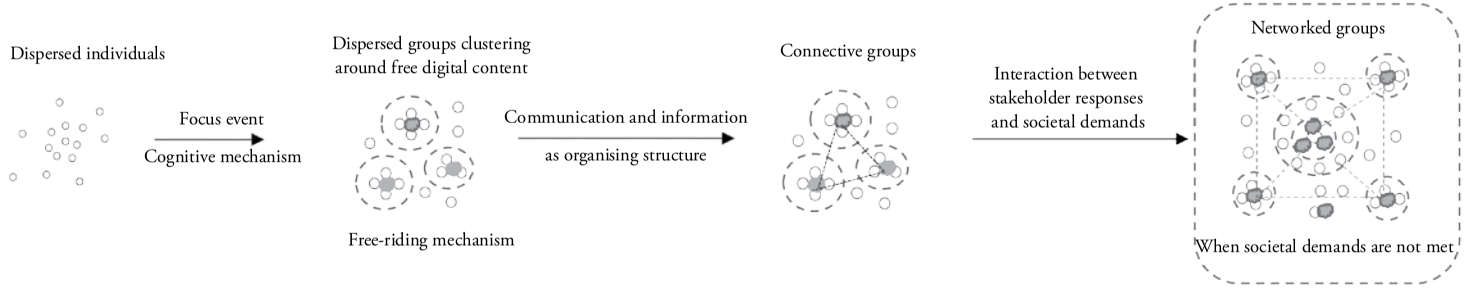
On a final note, online collective action—despite its potential of causing significant political and legal upheaval in China—concludes once its goal has been achieved.[62] Therefore, local governments are compelled to swiftly and rigorously address criminal activities, and to commit to improving crime prevention and control. Figure 2 chronicles the key timeline of the case. Within hours, the Tangshan event ignited a national dialogue, which continued for approximately a week from 10 to 17 June. The momentum eventually subsided as the government formally acknowledged the online sentiments and initiated an investigation into the criminal networks. The Ministry of Public Security's pledge made on 25 July at 10.55am to investigate the case thoroughly marked the turning point. As mentioned before, more than two dozen perpetrators were imprisoned, one for an extended period.

Characteristics and Mechanism Shaping Online Collective Action

Building on the preceding observations, the authors developed a process model that demonstrates how social media-enabled mechanisms encourage dispersed individuals to participate in online collective action (Figure 3). The model highlights the following aspects. First, most online collective actions in China are event-driven, focused on specific rights, transient, spontaneous and self-organised and typically lacking formal organisation.[63] Second, individuals concerned about social events tend to gravitate towards digital content providers on social media platforms who share their concerns about social issues. This dynamic facilitates the emergence of online collective action even in the absence of clear opinion leaders or formal organisational structures. Third, the rapid—or even viral—spread of information through social media presents a significant challenge to the government and other stakeholders, including businesses. Fourth, online collective action may end its course if the issue successfully draws the government's attention, prompting a response and measures to address the underlying social problem. Fifth, if the government or relevant stakeholders fail to respond appropriately to social demands, the online collective action may persist or even intensify.[64] Throughout this process, the digital media environment expands

[61] Xue, van Stekelenburg and Klandermans, "Online Collective Action in China".
[62] Ibid.; Xue and van Stekelenburg, "When the Internet Meets Collective Action".
[63] Xue, van Stekelenburg and Klandermans, "Online Collective Action in China".
[64] The Tangshan incident reached its peak of online public opinion within two days, indicating the relatively brief period in which the incident had developed. From a macro perspective, there were no significant twists and turns in this unfolding. However, a microscopic examination of the incident shows that the local government's initial response was inadequate, contributing to the continued fermentation of online public opinion. For instance, although the police station was located less than a kilometre from the crime scene, the police took three hours to arrive there. On the contrary, the police claimed on 13 June that they arrived at the scene within five minutes upon receiving the call. Such an inappropriate response further broadened public commentary on the internet.

Figure 3. Social media-enabled Mechanisms Shaping the Emergence of Online Collective Action



Source: Adapted from Carmen Leong et al., "Digital Organizing of a Global Social Movement: From Connective to Collective Action", *Information & Organization* 30, no. 4 (2020).

opportunities for online collective action by lowering the costs of information and communication,[65] and providing solutions to free-riding problems. These are crucial mediating conditions that influence at what time and how long people are likely to participate in online actions. Meanwhile, cognitive mechanisms, particularly the perceived efficacy of the government to respond to online public opinions, serve as another mediating condition that indicates who is more inclined to participate in online collective action.

CONCLUSION

This article contributes to the current literature by enhancing the understanding of the social and political implications of digital media, particularly the dynamics of online collective action.

First, it provides new evidence from China on the topic of digital media use as a stimulus of collective action. Consistent with most previous literature, the findings indicate that digital media use provides numerous opportunities for individuals for such online engagement. Additionally, social-media-based information activities—especially those related to information searching, screening and sharing—contribute most significantly to collective participation online.

Second, this article contributes to recent literature on the relevance of Olson's logic of collective action in the digital world. Olson identifies the free-rider dilemma as a central issue in collective action.[66] This article, based on empirical evidence from China, highlights that the internet and digital media provide opportunities for free-riding, which individuals can leverage to participate in online collective action. The results indicate that the free-rider dilemma remains pertinent in explaining online collective action, as some scholars have argued. However, the mechanisms addressing the dilemma have become more implicit and nuanced, often linked to a broader range of business benefits, at least within the Chinese context. Therefore, this article discovers strong empirical support for the applicability of Olson's logic to the digital world, potentially enhancing its explanatory power rather than undermining it.

Third, this article integrates structural and individual-level models to comprehensively account both for situations in which people tend to participate in online collective action and for the characteristics of those most likely to do so. In this sense, this study advances the empirical testing of the dynamics of online collective action using the integrated approach proposed by past research.[67] The results suggest that the availability of free-riding opportunities enabled by digital media helps explain the conditions under which online collective action may flourish. Furthermore, individuals with a higher perception of political efficacy are more likely to participate in online collective action than those with lower perceived efficacy.

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[65] Bimber, "Three Prompts for Collective Action in the Context of Digital Media".
[66] Olson, *The Logic of Collective Action*.
[67] Bimber, "Three Prompts for Collective Action in the Context of Digital Media".

Fourth, this article has demonstrated the utilisation of a mixed-methods approach that combines a quantitative analysis of nationwide survey data in China with the Tangshan case study. This mixed-methods approach enhances the confidence of the research results, with the case study serving as a robustness check and providing clarification for findings derived from the quantitative analysis, as well as addressing factors not captured quantitatively.[68]

Despite its nuanced contributions to understanding the dynamics of online collective action, particularly the role of digital media and the free-rider dilemma, in shaping collective actions, this article has limitations. It is based on cross-sectional survey data, which, although nationally representative, allows only inferences about the impacts of digital media use on online collective action, rather than determining causal relationships. Furthermore, the measurements of key variables are constrained by the available data. Future research should explore this topic with time-sequential data and more rigorous measurements. The intricate relationship between commercial incentives, the strategic use of digital platforms by various stakeholders and the mechanisms addressing the prevalent free-riding phenomenon warrants deeper investigation. Comparative studies across different cultural and political contexts could also provide a broader perspective, enhancing the generalisability of the findings.

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The research related to this work was supported by the Fundamental Research Funds for the Central Universities (no. 23IJKY02). The authors would like to thank the anonymous reviewers for their useful comments.

[68] Johnson, Onwuegbuzie and Turner, "Toward a Definition of Mixed Methods Research"; Van Aken and Lewis, "The Political Economy of Noncompliance in China".

The Pseudo Opinion Polarisation of Chinese Online Political Culture: Evidence from Debates on Social Media Surrounding Fang Fang and *Wuhan Diary*

LIU Hailong, TA Na, XIE Zhuoxiao and LI Zhanghao

The growing division of opinions and the apparent polarisation in Chinese cyberspace can be attributed to the complexity of online debate and Chinese political culture. This article examines as a case study the online discussion surrounding Fang Fang, a controversial figure during the COVID-19 outbreak in China, to analyse the characteristics, trends and factors driving the intensifying issue-based online conflict. It tests polarisation effects using a large data set of comments and users that cite Fang Fang's Weibo posts over a three-month period. Empirical analysis indicates that the perceived polarisation in Chinese social media should be understood as "pseudo opinion polarisation". Despite temporary polarisation, there was no sustained polarisation of attitudes in these online debates. The discussion reveals that the dominant opinion, which was against Fang Fang, overshadowed opposing views. There is also a noticeable uptrend in expressions of cyber-nationalism expression in comments. The authors argue that within Chinese political culture, when political divisions deepen in issue-based discussions, overarching political discourses (e.g. nationalism) may impede or reverse the process of polarisation. Thus, rather than opinion polarisation, a mainstreaming of opinion was observed.

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> *[I] support Fang Fang because she let the world know about our suffering through her diaries. The pain is the truth. If it is really heard by the so-called international society, our pain [can become] more widely known. This is the accelerating death knell of extreme leftists, and the gospel of the loyal people of civilised countries.*
>
> (Comment from a supporter of Fang Fang)

> *Have I scolded the old witch Fang Fang today? I don't remember, so let's do it anyway: Fang Fang the old witch posted disinformation, colluded with reactionary forces, slandered the Chinese people, and abused her privilege. Please, someone, send her to the Sun immediately.*
>
> (Comment from an opposer of Fang Fang)

The comments above are examples from early 2020 of responses to social media posts by Fang Fang, a well-known and controversial novelist in China. Fang Fang shared her personal experiences in Wuhan and her opinions in the form of diaries during the Wuhan lockdown, which lasted from 23 January to 25 March 2020, as COVID-19 began to spread across China. She used her Weibo account, a Chinese leading social media platform similar to Twitter (currently known as "X"), to discuss various issues with others. Fang Fang and her diaries faced increasing scrutiny and sparked intense debates, revealing both supportive and opposing views. For example, there were claims that her niece escaped Wuhan during the lockdown because Fang Fang "pulled strings", and that her diary contained "misinformation". In April 2020, Fang Fang's Weibo diary collection, entitled *Wuhan Diary: Dispatches from a Quarantined City*, was published internationally in multiple languages. The debates centred on the authenticity of Fang Fang's personal experiences in Wuhan, the domestic handling of the COVID-19 pandemic and the international influence of *Wuhan Diary*.

At the time, public opinion was divided on Fang Fang. Within three months, her Weibo posts garnered thousands, sometimes millions, of comments, turning her Weibo page into a semi-public space for expressing views on China's pandemic prevention measures. Thus, these public debates provide an opportunity to investigate the patterns and dynamics of how polarised the opinions are (and if there was any polarisation) on Chinese social media regarding pandemic prevention.

Research on social media polarisation has examined its manifestations, factors and consequences.[1] However, there is limited empirical evidence on polarisation or depolarisation in Chinese social media contexts. By focusing on the Chinese cybersphere, therefore, the authors aim to contribute to the empirical analysis and discussion of

[1] Paul DiMaggio, John Evans and Bethany Bryson, "Have Americans' Social Attitudes Become More Polarized?", *American Journal of Sociology* 102, no. 3 (1996): 690–755; Lee Jae Kook et al., "Social Media, Network Heterogeneity, and Opinion Polarization", *Journal of Communication* 64, no. 4 (2014): 702–22; Yphtach Lelkes, "Mass Polarization: Manifestations and Measurements", *Public Opinion Quarterly* 80, no. S1 (2016): 392–410; Moran Yarchi, Christian Baden and Neta Kligler-Vilenchik, "Political Polarization on the Digital Sphere: A Cross-platform, Over-time Analysis of Interactional, Positional, and Affective Polarization on Social Media", *Political Communication* 38, nos. 1–2 (2021): 98–139.

issue-based opinion polarisation and the dynamics of political (de)polarisation in a non-Western context.

Instead of capturing polarisation of public opinions about Fang Fang, a "pseudo" attitudinal polarisation was identified, where polarisation of opinions and attitudes occurred only at certain moments.[2] In this article, the terms "opinion" and "attitude" are used interchangeably to refer to people's views and evaluations of Fang Fang. A dominant attitude was also identified throughout the discussion of the posts. Based on these findings, this article examines how Chinese political culture correlates with pseudo opinion polarisation and the dynamics of opinion (de)polarisation in the Chinese online semi-public discussion space.

EXPOSURE TO POLITICAL DISAGREEMENT AND THE POTENTIAL FOR OPINION POLARISATION ON CHINESE SOCIAL MEDIA

Political disagreement is defined as "the perception of difference resulting from an encounter with an individual or entity in a setting in which it is possible to interact via communication".[3] Investigating the factors and outcomes of political disagreement is therefore fundamental to the development of the concept and theories of deliberative democracy.[4] Variations in Chinese political culture may lead individuals to respond differently to political disagreement, thereby influencing the tendency of opinion polarisation among them.[5]

Chinese netizens frequently encounter political disagreement on social media, as illustrated by the online debates on Fang Fang's posts. This study attempts to understand how online opinion expression is shaped in the Chinese context. By using naturally occurring data from the online social media platform Weibo, the authors analyse attitude formation and trends in opinion development. The authors focused on Fang

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[2] Tang Jingtai, Xu Mingliang and Xing Chen, "Lichang, qinggan, zhuyili yu xuanzexing jiechu: Yulun jihua de yingxiang yaosu fenxi" (Ideological Positions, Sentiment, Attention and Selective Exposure: Analysis of the Factors of Public Opinion Polarization), *Chinese Journal of Journalism & Communication* 45, no. 1 (2023): 132–56; Wu Fei and Xu Bailing, "Zimeiti huayu shijianzhong de guandian jihua yu shehui liupu: Dui Fangfang riji haiwai chuban zhenglun de gean fenxi" (Attitudinal Polarisation and Social Cascades among the Discourses of We Media: A Case Study of the Debates about the Overseas Publishing of Fang Fang's *Wuhan Diary*) , *Shanghai Journalism Review*, no. 6 (2020): 37–46.

[3] Matthew Barnidge, "Exposure to Political Disagreement in Social Media Versus Face-to-Face and Anonymous Online Settings", *Political Communication* 34, no. 2 (2017): 302–21.

[4] James S. Fishkin, *When the People Speak: Deliberative Democracy and Public Consultation* (Oxford: Oxford University Press, 2009); Diana C. Mutz, *Hearing the Other Side: Deliberative versus Participatory Democracy* (Cambridge: Cambridge University Press, 2006); Cass R. Sunstein, *#Republic: Divided Democracy in the Age of Social Media* (Princeton, NJ and Oxford: Princeton University Press, 2017); Magdalena Wojcieszak and Diana C. Mutz, "Online Groups and Political Discourse: Do Online Discussion Spaces Facilitate Exposure to Political Disagreement?", *Journal of Communication* 59, no. 1 (2009): 40–56.

[5] He Baogang, *Deliberative Democracy: Theory, Method and Practice* (Beijing: China Social Sciences Press, 2008).

Fang's Weibo comments over a three-month period, treating Weibo as a semi-public space for political discussion. They analysed people's reactions following divergent discussions on this controversial issue to examine various possibilities of opinion formation.[6] The fundamental research question is:

RQ1: What was the distribution of attitudes in the comments on Fang Fang's social media posts and did online public opinion evolve over time?

MULTIPLE INDICATORS OF (DE)POLARISATION EFFECTS

Polarisation is a complex concept that encompasses both a state and a trend.[7] Researchers have conceptualised opinion polarisation and group polarisation in various ways using different indicators.[8] For example, affective polarisation refers to the intensification among groups of negative emotions, such as prejudice, discrimination and hatred, particularly among individuals with opposing ideological views. Group polarisation involves the deepening of beliefs among group members and differences with those outside the group, whereas opinion and attitudinal polarisation are the intensifications of divided views in discussion of public issues.[9] This article examines the polarisation of attitudes towards Fang Fang and her *Wuhan Diary*, conceptualising opinion polarisation as the distinct separation of supportive and oppositional opinions expressed in social media comments.[10]

Some studies have suggested that exposure to different perspectives does not correlate with increased tolerance towards opposing views.[11] Rather, disagreement may heighten negative sentiments to and evaluations of those with opposing opinions.[12] Conversely, other studies emphasise the importance of exposure to diverse views as essential for deliberative democracy.[13] Social media can facilitate encounters with heterogeneous information and diverse interaction networks are crucial for moderating polarised views.[14] Viewed through this lens, political polarisation is likely

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[6] Tony Zhiyang Lin and Tian Xiaoli, "Audience Design and Context Discrepancy: How Online Debates Lead to Opinion Polarization", *Symbolic Interaction* 42, no. 1 (2019): 70–97.

[7] DiMaggio, Evans and Bryson, "Have Americans' Social Attitudes Become More Polarized?".

[8] Shanto Iyengar, Gaurav Sood and Yphtach Lelkes, "Affect, Not Ideology: A Social Identity Perspective on Polarization", *Public Opinion Quarterly* 76, no. 3 (2012): 405–31.

[9] Thomas J. Leeper, "The Informational Basis for Mass Polarization", *Public Opinion Quarterly* 78, no. 1 (2014): 27–46.

[10] Yarchi, Baden and Kligler-Vilenchik, "Political Polarization on the Digital Sphere".

[11] Magdalena Wojcieszak and Vincent Price, "Bridging the Divide or Intensifying the Conflict? How Disagreement Affects Strong Predilections about Sexual Minorities: Deliberating the Divide", *Political Psychology* 31, no. 3 (2010): 315–39.

[12] Barnidge, "Exposure to Political Disagreement in Social Media Versus Face-to-Face and Anonymous Online Settings".

[13] Diana C. Mutz, "Facilitating Communication across Lines of Political Difference: The Role of Mass Media", *American Political Science Review* 95, no. 1 (2001): 97–114.

[14] Kim Yonghwan, "Does Disagreement Mitigate Polarization? How Selective Exposure and Disagreement Affect Political Polarization", *Journalism & Mass Communication Quarterly* 92, no. 4 (2015): 915–37; Lee et al., "Social Media, Network Heterogeneity, and Opinion Polarization".

to intensify when disagreement within a discussion network increases exposure to like-minded individuals or exaggerates homophily.[15] Thus, examining (de)polarisation effects following exposure to political disagreement and discussion is a central focus of these studies.

Studies of (de)polarisation have however, given disproportionate attention to specific types of partisan regimes and political cultures. While research on the consequences of political discussions and polarisation effects has notably proliferated in democratic societies,[16] the diverse conclusions are drawn on the basis of scholars' differing conceptual definitions and measurements.[17] This results in increasingly complex discrepancies between realistic indicators and measurements of polarisation in specific contexts and perceived polarisation in societies. The findings of this article affirm this dilemma.

Polarisation research has found both supporting and contradictory evidence from sources in various contexts concerning the existence of polarisation. These conflicting findings may stem from differences in the types of polarisation analysed, such as group polarisation, issue-based opinion polarisation, or affective polarisation related to the evaluation of political parties. Thus, it is crucial to measure indicators of the long-term and short-term effects of polarisation, as well as differences in the settings in which they are measured. This is necessary because experimental settings, questionnaires and naturally generated data analyses align with different paths of polarisation theory analysis.[18]

POLITICAL AND CULTURAL COMPLEXITY OF (DE)POLARISATION IN CHINA'S DIGITAL SPHERE

The existing literature suggests that polarisation can arise in political and cultural settings in which there is: (i) reinforcement from a limited pool of arguments; (ii) a strong individualistic culture within a framework of deliberative democracy; or (iii) consistent ideological support for political expression without reputational consideration.[19] It is crucial for studies on polarisation to take into account the influence of contexts that shape people's tendency to deal with political differences and engage in political discussions. Globally, contexts distinct from Western deliberative democracy not only affect people's understanding of conflict but also create unique environments

[15] Myiah Hutchens, Jay D. Hmielowski and Michael Beam, "Reinforcing Spirals of Political Discussion and Affective Polarization", *Communication Monographs* 86, no. 3 (2019): 357–76.

[16] James Adams, Catherine E. De Vries and Debra Leiter, "Subconstituency Reactions to Elite Depolarization in the Netherlands: An Analysis of the Dutch Public's Policy Beliefs and Partisan Loyalties, 1986–98", *British Journal of Political Science* 42, no. 1 (2012): 81–105; Eytan Bakshy, Solomon Messing and Lada A. Adamic, "Exposure to Ideologically Diverse News and Opinion on Facebook", *Science* 348, no. 6239 (2015): 1130–2; Lelkes, "Mass Polarization: Manifestations and Measurements".

[17] Delia Baldassarri and Peter Bearman, "Dynamics of Political Polarization", *American Sociological Review* 72, no. 5 (2007): 784–811; Lelkes, "Mass Polarization".

[18] Baldassarri and Bearman, "Dynamics of Political Polarization"; Lelkes, "Mass Polarization".

[19] Sunstein, *#Republic: Divided Democracy in the Age of Social Media*.

that encompass both the online and offline realms in which opinions are expressed. China serves as a typical example of such a context.[20]

In China, the political spectrum and the political stances of its people do not adhere to a unitary and coherent theoretical system.[21] The political left and right differ in their economic, political and cultural preferences, resulting in a variety of groups, such as Maoists, nationalists, political conservatives, economic liberals and political liberals.[22] The issue of nationalism highlights the question of political legitimacy, with cyber-nationalism representing grassroots nationalism on the internet and centred around discourse practices that emphasise the nation-state.[23]

Chinese political culture exhibits lower tolerance for exaggerated political conflicts and disagreements, compared to Western political culture. Within the institutional context, political groups, such as China's Party Congress, organise large-scale political events involving many people to achieve political agreement and compliance.[24] In real world and digital contexts, the government actively works to resolve political conflicts in various ways.[25] Some individuals may avoid political conflict, demonstrating a preference for network homophily, leading to "unfriending" and withdrawal on social media.[26] In some cases, political disagreement and conflict may result in silenced voices due to communal pressure.[27]

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[20] He, *Deliberative Democracy*.

[21] Gui Yong, Huang Ronggui and Ding Yi, "Three Faces of the Online Leftists: An Exploratory Study Based on Case Observations and Big-data Analysis", *Chinese Journal of Sociology* 6, no. 1 (2020): 67–101; Zhao Dingxin, "The Biggest Hidden Hazard of Contemporary China" (in Chinese), *Twenty-First Century*, no. 173 (2019): 4–19.

[22] Angela Xiao Wu, "Ideological Polarization Over a China-as-Superpower Mind-set: An Exploratory Charting of Belief Systems Among Chinese Internet Users, 2008–2011", *International Journal of Communication* 8 (2014): 2650–79; Huang Ronggui, Gui Yong and Sun Xiaoyi, "Beyond the Left-Right Spectrum: A Typological Analysis of Ideologues in China's Weibo Space", *Journal of Contemporary China* 28, no. 119 (2019): 831–47.

[23] Liu Hailong, ed., *From Cyber-Nationalism to Fandom Nationalism: The Case of Diba Expedition in China* (London: Routledge, 2019).

[24] Wu Guoguang, *China's Party Congress: Power, Legitimacy, and Institutional Manipulation* (Cambridge: Cambridge University Press, 2015).

[25] Gary King, Jennifer Pan and Margaret E. Roberts, "How the Chinese Government Fabricates Social Media Posts for Strategic Distraction, Not Engaged Argument", *American Political Science Review* 111, no. 3 (2017): 484–501; Rebecca MacKinnon, "Liberation Technology: China's Networked Authoritarianism", *Journal of Democracy* 22, no. 2 (2011): 32–46.

[26] Zhu Qinfeng and Marko M. Skoric, "From Context Collapse to 'Safe Spaces': Selective Avoidance through Tie Dissolution on Social Media", *Mass Communication and Society* 24, no. 6 (2021): 892–917; Rony Medaglia and Yang Yang, "Online Public Deliberation in China: Evolution of Interaction Patterns and Network Homophily in the Tianya Discussion Forum", *Information, Communication & Society* 20, no. 5 (2017): 733–53.

[27] Chen Hsuan-Ting, "Spiral of Silence on Social Media and the Moderating Role of Disagreement and Publicness in the Network: Analyzing Expressive and Withdrawal Behaviors", *New Media & Society* 20, no. 10 (2018): 3917–36.

Scholars have proposed that the conflictual nature of topics and contexts in contemporary discourse contributes to the polarisation of attitudes in political discussions on social media. Some researchers find that the polarising effect of digital media is contingent on whether a divisive issue is prominent.[28] Strong and highly conflicting political contexts are key conditions for the emergence of polarisation effects on social media, enhancing political discussion, debate and information flows. The echo chamber effect of social media and the level of polarisation are mutually reinforcing. However, it remains unclear to what extent an issues-based debate can sustain the perception of being in a state of essential conflict and further extend the polarisation of public opinion over the long term.[29] Further empirical studies are necessary to characterise (de)polarisation across different regimes, political and cultural climates, modes of opinion expression, and perceptions of conflict.

The state apparatus and hegemony in China have continuously developed from the early days of the internet to the current stage of media platformisation. Studies of political cultures widely agree that political discussion, online expression and discursive mobilisation exist in a limited space in the Chinese digital sphere.[30] Online censorship and information filtering may also hinder the diversity of political expression, state criticism and potential collective action based in and from online discussions.[31] Consequently, the government may maintain hegemony over Chinese cyberspace, preventing the formation of a consistent cultural and political environment for public debate and for opposing political perspectives.[32]

The contextual specificity of the Chinese digital sphere makes the empirical examination of (de)polarisation an interesting contrast to that applied in Western contexts. Scholars have endeavoured to examine various political polarisation processes in online space, suggesting that group polarisation in China may relate to public social endorsement mechanisms, which manifest as extremism, radicalisation and division

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[28] Francis L.F. Lee, "Impact of Social Media on Opinion Polarization in Varying Times", *Communication and the Public* 1, no. 1 (2016): 56–71.

[29] Lee Changjun, Shin Jieun and Hong Ahreum, "Does Social Media Use Really Make People Politically Polarized? Direct and Indirect Effects of Social Media Use on Political Polarization in South Korea", *Telematics and Informatics* 35, no. 1 (2018): 245–54; Tim Neumann, Ole Kelmand and Marco Dohle, "Polarisation and Silencing Others During the COVID-19 Pandemic in Germany: An Experimental Study Using Algorithmically Curated Online Environments", *Javnost-The Public* 28, no. 3 (2021): 323–39.

[30] Han Rongbin. *Contesting Cyberspace in China: Online Expression and Authoritarian Resilience* (New York: Columbia University Press, 2018); Liu Hailong, *Propaganda: Ideas, Discourses and Its Legitimization* (1st ed.) (London: Routledge, 2020).

[31] Gillian Bolsover and Philip Howard, "Chinese Computational Propaganda: Automation, Algorithms and the Manipulation of Information about Chinese Politics on Twitter and Weibo", *Information, Communication & Society* 22, no. 14 (2019): 2063–80; Christopher Cairns and Allen Carlson, "Real-world Islands in a Social Media Sea: Nationalism and Censorship on Weibo during the 2012 Diaoyu/Senkaku Crisis", *The China Quarterly* 225, no. 1 (2016): 23–49.

[32] Han, *Contesting Cyberspace in China*.

within the public.[33] Many studies have examined these phenomena in Chinese social media, particularly Weibo, which in recent decades has become a major online platform for Chinese netizens to share information and express their opinions.[34] Case studies on Weibo have largely supported the notion that we-media create netizen crowds and that opinion polarisation occurs at specific moments, with obvious group polarisation of negative sentiment arising during incidents. Scholars have also studied public debate and Fang Fang specifically to understand attitude polarisation. Content analysis of 636 online posts using systematic sampling found polarised opinions accompanied by social cascades.[35]

In examining how issue framing and discussants were polarised in the public discussions of *Wuhan Diary* on social media, it is suggested that ideological polarisation existed between liberal, populist and statist political stances adopted by different netizens.[36] However, previous studies of online polarisation in the Chinese digital context have used inadequate measurements and a relatively small data size. These studies primarily interpreted polarisation as a static state, overlooking the change in the opinion climate over time and the various reactions following the discussion.[37] Moreover, these studies have not examined periodical interactions of opinions within shared common commentary spaces.

This article, therefore, focuses on the development of episodic, multi-indicator attitude trends on Weibo to more accurately capture the conditions for polarisation on Chinese social media and its effects. The authors analyse the distribution of attitudes both at specific moments and over time, and argue that attitude polarisation should be examined as a process of opinion formation because the bipolar formation of attitudes should be evident during certain periods of opinion expression, beyond momentary attitudinal polarisation. Accordingly, research question RQ2 examines attitudinal polarisation:

RQ2: Did the opinions of those who commented on Fang Fang's posts and *Wuhan Diary* on Weibo become polarised over time?

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[33] Xia Qianfang and Yuan Yongtao, "From Group Polarization to Public Polarization: Evolution and Transition of Polarization Theory", *Journalism & Communication* 24, no. 6 (2017): 5–32.

[34] Ge Yan, Qin Yulin and Zhao Hanqing, "Social Media and Opinion Polarization in an Artificial Society: An Agent-based Modeling", *Chinese Journal of Journalism & Communication* 42, no. 2 (2020): 67–99; Yang Guang, "Opinion Polarization and Convergence on Social Media: Based on Sina Weibo's Data on Guangzhou Uncle Ou's Scandal" (in Chinese), *Journalism & Communication*, no. 2 (2016): 66–79.

[35] Wu and Xu, "Attitudinal Polarization and Social Cascades among the Discourses of We Media".

[36] Tang, Xu and Xing, "Ideological Positions, Sentiment, Attention and Selective Exposure".

[37] Xin Wenjuan and Lai Han, "The Dynamic Mechanism of Group Polarization in Sina Weibo: Based on Content Analysis of Doctor Slain in Wenling City" (in Chinese), *Journal of Intelligence* 33, no. 6 (2014): 162–6; Yang, "Opinion Polarization and Convergence on Social Media" (in Chinese); Huang He and Kang Ning, "Characteristics and Mechanism of Group Polarization in the Era of Mobile Internet: A Content Analysis Based on Media Texts and Netizen Comments on the *Jiang Ge* Case" (in Chinese), *Chinese Journal of Journalism & Communication* 41, no. 2 (2019): 38–61.

METHODOLOGY

Weibo (weibo.com) is the largest de facto online public space in China and is thus an appropriate platform for observation, as it accommodates 78 per cent of China's internet users, 99 per cent of which are ordinary people, i.e. those who are neither professional bloggers nor celebrities, and comprises 54.6 per cent females and 45.4 per cent males.[38]

The case of Fang Fang represents a typical public debate within Weibo's semi-public space. A diverse range of participants, including public intellectuals, populists and mass media with a range of political views (from liberal to conservative), engaged in discussions about the Wuhan quarantine, *Wuhan Diary* and China's regional and national public health strategies. These engagements occurred through features such as commenting, liking and reposting Fang Fang's posts. These debates involved extensive online political discussions during the COVID-19 pandemic.

Since a significant difference between China and Western democracies lies in their respective party systems, partisan polarisation and the corresponding analysis of affective polarisation in Western contexts cannot be directly applied to China. Moreover, the pandemic and the online political environment contributed to unique contexts in China, altering the nature of conflicts over issues and the division between in- and out-groups in response to national pandemic control and China's stance in the international situation.

In this study, a mixed-methods research design was employed to examine the nature of public debates on certain issues within China's online social networks. Initially, big data analysis was applied to both comments and commenters related to Fang Fang's Weibo posts within a three-month period to identify the characteristic features and trends of this intense public debate highlighting the state of polarisation in China. Subsequently, qualitative methods were used to investigate correlations between nationalist discourse and polarisation.

Data Collection

Data were collected in an almost-real-time manner, with daily collection spanning three months to effectively mitigate potential data loss due to censorship or deletion of messages by users. With approval from the institutional review board, the authors used a Python 3 crawler programme authorised under Weibo's authentication to obtain three types of Weibo data. In total, the data set comprised 94 original posts by Fang Fang, 122,280 unique comments and 51,776 unique user profiles. The

[38] China Internet Network Information Center, "Di 48 ci Zhongguo hulian wangluo fazhzan zhuangkuang tongji baogao" (The 48th Statistical Report on the Development of China's Internet Network), 2021, at <https://www.cnnic.net.cn/n4/2022/0401/c88-1132.html> [1 February 2023]; Weibo Data Center, 2019, "2018 Weibo yonghu fazhan baogao" (Report on the Development of Weibo Users in 2018), at <https://data.weibo.com/report/reportDetail?id=433&display=0&retcode=6102> [1 February 2023].

comments and user profiles were anonymised. Table 1 provides details of the data set in this study.

(i) Fang Fang's posts on Weibo

All of Fang Fang's original posts (in the form of diaries) during the initial period were retrieved (Figure 1). Although she ceased posting diaries in the second and third periods, she remained active on Weibo. Consequently, all of her posts with more than 5,000 comments[39] or those she reposted were gathered, as reposting one's own messages is a common practice to emphasise one's stance. A total of 94 such posts were acquired.

(ii) Direct (first-layer) comments on Fang Fang's posts

A filtering scheme was employed to focus on Fang Fang's posts and the ensuing discussions, retrieving only the direct (first-layer) comments on her posts; each comment included a time-stamp, textual content and the commenter's user ID. While Weibo allows users to comment on other comments, these can form dialogues between different commenters rather than direct interactions with the blogger. Therefore, all indirect comments were excluded.

(iii) Commenters' user profiles

The publicly available user profile of each commenter who made one comment or more during the period of interest was retrieved. Each user profile includes a self-defined nickname, a brief self-introduction, self-defined tags indicating the user's interests, real-identity authentication status, registered location, registered gender, Weibo registration time, the number of accounts followed by the user and the user's number of followers.

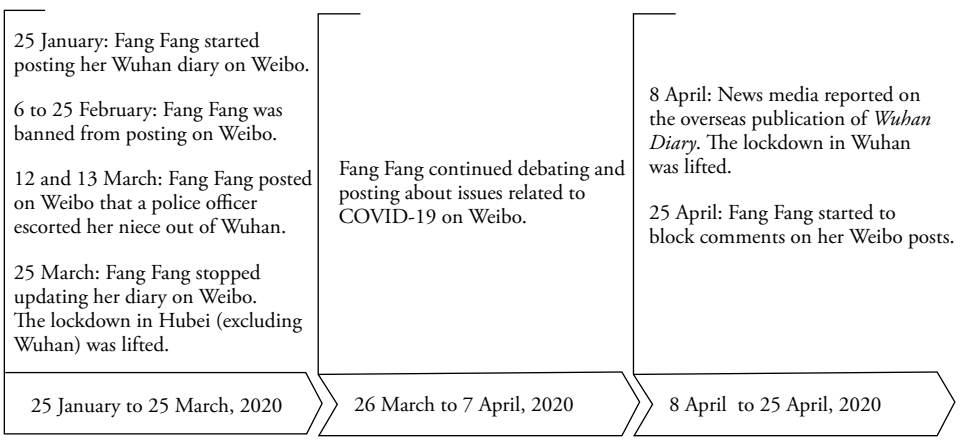
TABLE 1
OVERVIEW OF DATA COLLECTION ACROSS THREE PERIODS

Period	No. of Fang Fang's Original Weibo Posts	No. of Unique Original Comments	No. of Unique Commenters
25 January to 25 March 2020	50	64,724	31,981
26 March to 7 April 2020	14	11,348	7,496
8 April to 25 April 2020	30	46,208	21,589

[39] For the second and third periods, the authors tried to retrieve only those posts by Fang Fang that had garnered more than 10,000 comments. This threshold is commonly regarded as a benchmark for identifying popular posts on Weibo. However, using this 10,000-comment threshold limited the number of comments collected, making it difficult to compare with the volume of comments gathered during the first period. To address this issue, the threshold was gradually lowered to 5,000, allowing for the collection of a sufficient number of comments.

The three-month online debate, spanning from 25 January to 25 April 2020, was characterised by four key events. First, on 25 January 2020, Fang Fang began sharing her personal experiences in Wuhan and her views on COVID-19 on Weibo. Second, on 25 March, the lockdown in Hubei province, except for Wuhan, was lifted and Fang Fang stopped posting her diary entries. Third, on 8 April, Wuhan's lockdown was lifted and the media reported that Fang Fang's diary would be published internationally. Fourth, on 25 April, Fang Fang disabled comments on her Weibo posts (such that other users could not comment on her posts), thereby effectively ending any debates and discussions. The authors chronicled and outlined the online debates into three periods, namely the diary phase, the quiet phase and the publication phase (Figure 1).

Figure 1. Key Events during the Three Observation Periods



Data Analysis

Given the nuances of the problem under investigation, the authors utilised human-guided algorithmic classification to identify the attitudes expressed in comments about Fang Fang and her *Wuhan Diary*. To distinguish the types of attitudes, a hybrid content analysis was employed.[40] A carefully labelled big data set (of more than 10,000 comments) was used to train and fine-tune a bidirectional encoder representation from transformers (BERT) model, a state-of-the-art language classification tool.[41] The model then automatically classified the remaining extensive Weibo comment data set.

[40] Christian Baden, Neta Kligler-Vilenchik and Moran Yarchi, "Hybrid Content Analysis: Toward a Strategy for the Theory-driven, Computer-assisted Classification of Large Text Corpora", *Communication Methods and Measures* 14, no. 3 (2020): 165–83.

[41] Jacob Devlin, "BERT: Pre-training of Deep Bidirectional Transformers for Language Understanding", *arXiv preprint arXiv:1810.04805* (2018).

The results of automatic classification capture the distribution of commenters' attitudes at specific moments and over time. The development and trends in attitudes, public opinion expression, and the characteristics of opponents and supporters of Fang Fang were then analysed, accounting for any changes. Figure 2 provides a summary of the entire workflow, with stepwise details outlined as follows:

Step 1: Data acquisition

Three types of data were retrieved using the Weibo application programming interface (API).

Step 2: Data preprocessing

The collected data were cleaned and formalised, with hyperlinks and other non-textual elements removed, and duplicate records eliminated, yielding 122,280 unique comments and 51,776 unique user profiles across 94 Fang Fang's posts.

Step 3: Manual coding and codebook

Four coders manually coded 100 randomly selected sample comments and devised a codebook (see Appendix I). Comments were categorised into three attitudinal types: supportive (those obviously agreeing with Fang Fang, her posts or *Wuhan Diary*), oppositional (obviously disagreeing with Fang Fang, her posts or *Wuhan Diary*), and ambiguous (neither obviously agreeing nor disagreeing with Fang Fang, her posts or *Wuhan Diary*, or discussing unrelated issues). The intercoder reliability, measured by Krippendorff's alpha, was 0.91. The coders then manually labelled the attitudes of a data set of 12,000 randomly selected comments.

Step 4: BERT model training, testing and predicting

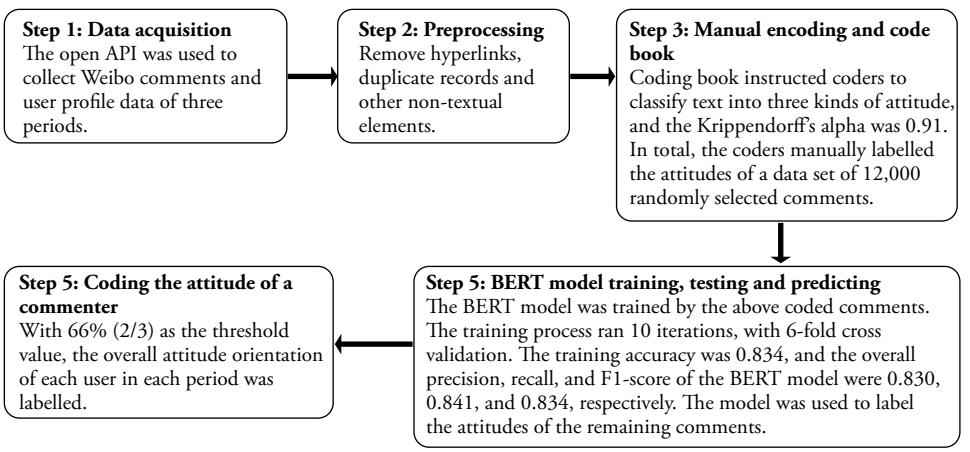
A BERT model[42] was trained with 10,000 labelled comments as the training data set and 2,000 labelled comments as the testing data set. The training process repeated 10 iterations, with sixfold cross-validation. The training accuracy was 0.834, while the overall precision, recall and F1-score of the BERT model were 0.830, 0.841 and 0.834, respectively. A precision of 0.830 suggested that about 83.0 per cent of the comments predicted as being supportive, oppositional or ambiguous by the BERT model were in fact correctly labelled. A recall of 0.841 suggested that the BERT model correctly identified around 84.1 per cent of comments in the test data set. An F1-score of 0.834 signified that the BERT model provided a good balance between precision and recall, with a slight tendency towards precision. Appendix II displays the performance of the BERT model for each category. Overall, the BERT model performed effectively on the test data set and was subsequently used to label the attitudes of the remaining 122,280 comments.

[42] The authors adopted Chinese_L-12_H-768_A-12 as the pre-training model, which they adjusted for Chinese text based on the BERT model; see model at <https://github.com/976868653/Chinese-Ner-based-on-BERT> [June 2022].

Step 5: Coding Weibo commenters' attitudes

In each period, a single user's overall attitude was determined by the majority (>2/3) of his/her comments. If no dominant attitude was evident, the user's attitude was classified as ambiguous. Subsequently, the distributions of the three types of attitudes were generated at the user level.

Figure 2. Workflow of the Hybrid Content Analysis



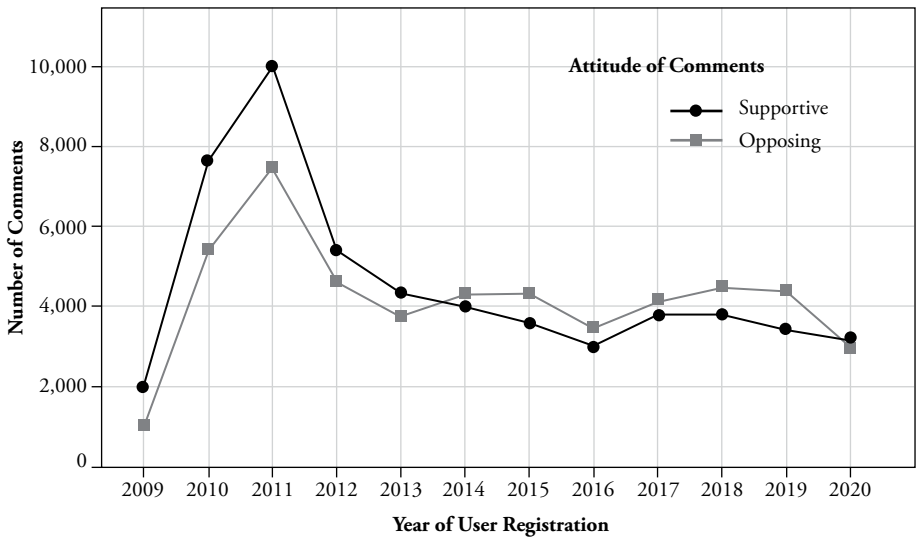
Note: API: Application Programming Interface.

FINDINGS

Commenters' Demographics

Of the 51,776 unique users identified as commenters, 34,168 registered as male and 17,623 registered as female (users who changed their registered genders during the three months were counted in both categories). Male users demonstrated more active involvement than female users did. In terms of users' geographical distribution, the top five registered provinces of residence were Beijing, Guangdong (which borders Hubei), Hubei (where COVID-19 was first identified in China), Shanghai and Jiangsu. Guangdong, Shanghai and Jiangsu are economically developed provinces in China, suggesting a connection between geographical, political and economic proximity and users' active involvement in the debate. Opinion holders with different attitudes—25,179 supporters and 23,110 opponents—were distinguished by the date of their registration on Weibo. Figure 3 illustrates that among early Weibo adopters (i.e. those registered between 2009 and 2013), there were more supporters than opponents. Conversely, among users who had registered more recently (from 2014 to 2020), opponents narrowly outnumbered supporters.

Figure 3. Number of Comments Made by Weibo Users By Year of Registration



The Ephemeral Opinion Polarisation Effect and Reversal of the Dominant Opinion

Overall, as a response to the first question in RQ1, there were similar numbers of both comments (54,149 supportive and 50,248 opposing) and of commenters (25,179 supportive and 23,110 opposing) on both supportive and opposing sides, indicating a bipolar distribution of attitudes.

As a response to the second part of the question in RQ1, however, a complete reversal from a supportive to an opposing dominant attitude was observed in the collected comments, suggesting that the online debate could not be categorised merely as polarised, if examined with a finer time granularity. In the first period, supportive comments (35,824 or 55.35 per cent) were predominant, surpassing both opposing comments (16,275 or 25.15 per cent) and ambiguous comments (12,625 or 19.51 per cent). In the second period, opposition became the dominant attitude as the proportion of opposing comments increased to 48.53 per cent. By the third period, opposing comments increased to 61.99 per cent, constituting more than double the proportion of supporting comments (30.11 per cent). Throughout the online debate therefore, the overall attitudinal trend of comments became increasingly apparent, with the proportion of supportive comments decreasing from over 50 per cent to less than 33 per cent. In all periods, the number of comments presenting an ambiguous attitude did not impact the dominance of either supportive or opposing attitudes.

Additional analyses of commenters' attitudes over time revealed a trend consistent with the comments, as illustrated in Figures 4 and 5, and Appendix II. A chi-square test comparing the number of supportive and opposing comments in the first and third periods revealed $p < 0.001$, suggesting a significant difference between the two periods. The same goes for commenters. Thus, the attitudinal distribution did not

become more pronounced and the assumption of polarisation during the debates is rejected.

Figure 4. Different Comment Attitudes over the Three Observation Periods

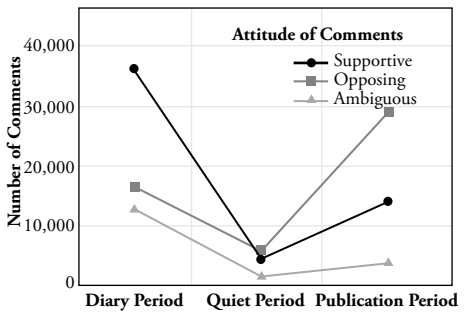
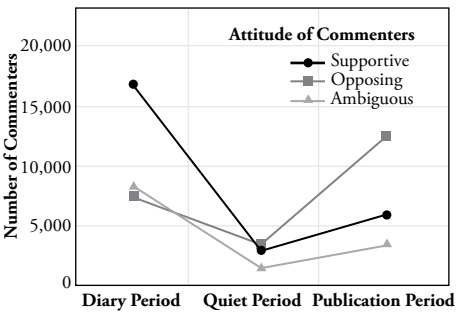
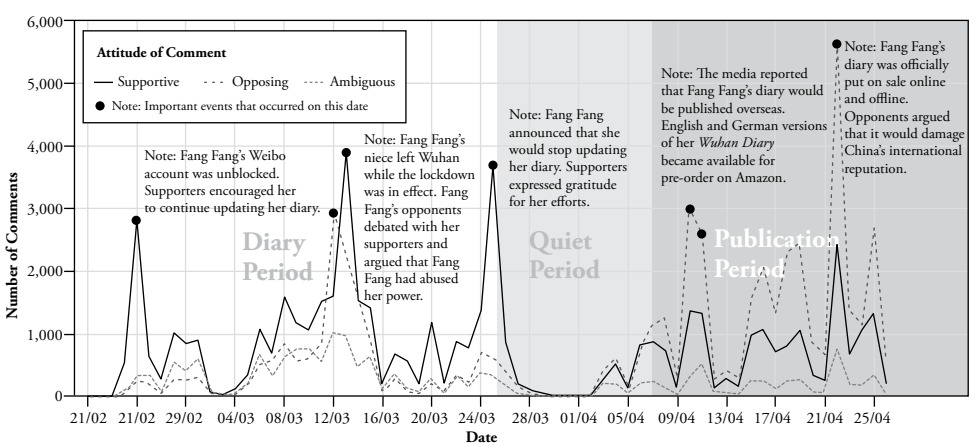


Figure 5. Different Commenter Attitudes over the Three Observation Periods



Daily fluctuations in comment volumes with different attitudes during the observation period also refuted the existence of temporal opinion polarisation. Momentary polarisation of attitudes and opinion expression occurred only at specific points in time. As shown in Figure 6, bipolar opinions appeared in mid-March 2020. At other times, evidence of attitudinal polarisation was weak as supportive and opposing attitudes respectively dominated the online debates at different periods. The variations and peaks in the volume curves in Figure 6 were linked to specific events related to the development of the COVID-19 outbreak. Following the publication of *Wuhan Diary*, opposing attitudes dominated the comments from 8 April 2020 onwards. This event-driven nature of online opinion expression showed that participants' attitudes were not rooted in stable partisanship but rather shifted with the social context.

Figure 6. Daily Variations in Comment Attitudes (21 February to 25 April 2020)



In sum, the empirical evidence suggests that polarisation did not develop during the observation period; this addresses the second research question, *RQ2*. Momentary polarisation of attitudes and opinion expression existed at specific points; however, overall, there was weak evidence of attitudinal polarisation. As the online debate approached its end, minority opinion holders kept their silence and a considerable number of remaining participants shifted their views.

Cyber-nationalism as a Switch in Opinion Polarisation

As public discussion about Fang Fang's diary continues, cyber-nationalism has emerged as a common discourse,[43] similar to what is observed in many controversial issues on Chinese social media, such as debates over Chinese traditional medicine and Huawei mobile phones.[44] To further examine the potential correlation between cyber-nationalist discourse and polarisation, two coders utilised their expertise in content analysis to jointly create a vocabulary of terms associated with nationalism (Appendix IV).[45] Any content containing a word in this vocabulary list was classified as involving cyber-nationalism. In total, 22,473 out of 64,724 comments included such elements.

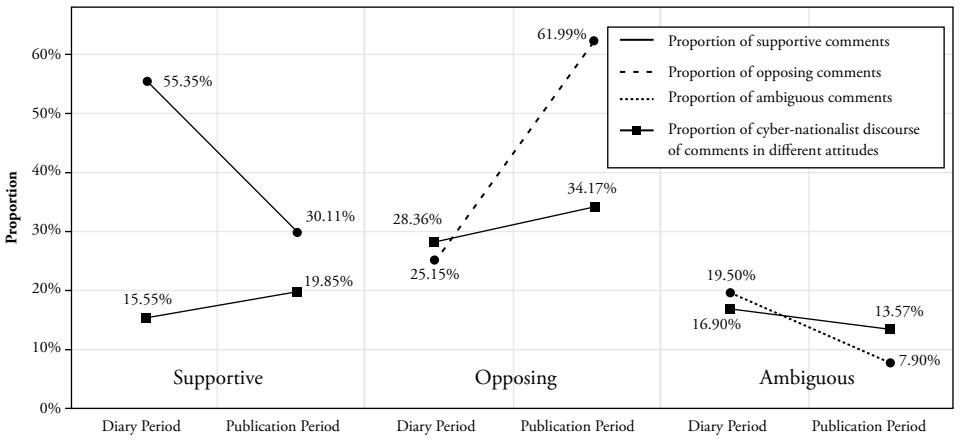
The results indicated an increasing trend in the prevalence of cyber-nationalist discourse. Comments featuring it rose from 19.31 per cent in the first period to 21.17 per cent in the second period and reached 28.23 per cent in the third period. This upward trend was evident in both supportive and opposing attitudes, although the percentage of supportive comments declined (see Figure 7). In the publication period (the third period), comments expressing cyber-nationalism were more prevalent than during the diary period (the first period). Specifically, the proportion of cyber-nationalist comments evincing supportive attitudes rose from 15.55 per cent to 19.85 per cent, while those with opposing attitudes rose from 28.36 per cent to 34.17 per cent, constituting more than one-third of opposing comments. Cyber-nationalist discourse was therefore employed by both opponents and supporters. However, in comments with ambiguous attitudes, this trend was on the decline.

[43] Han Rongbin, "Cyber Nationalism and Regime Support under Xi Jinping: The Effects of the 2018 Constitutional Revision", *Journal of Contemporary China* 30, no. 131 (2021): 717–33.

[44] Na Yuqi and Pun Ngai, "Techno-nationalism as the Cultural Logic of Global Infrastructural Capitalism: Media Spectacles and Cyber-situations in Huawei Meng Wanzhou's Extradition Case", *Chinese Journal of Communication* 16, no. 4 (2023): 426–43.

[45] Liu, ed., *From Cyber-Nationalism to Fandom Nationalism.*

Figure 7. Proportions of the Different Attitudes within the Comments and the Proportion Of Comments with Cyber-nationalist Discourse Within Each Attitude



DISCUSSION

Three hypotheses exist pertaining to the possible outcomes of disagreement in political discussions on online social media: (i) increased perceived disagreement and intensified polarisation; (ii) moderation of one's attitudes and opinion expression; or (iii) avoidance of expressing opinions.[46] Data analysis in this study has however shown that the outcomes can be more complex when Chinese netizens are exposed to political disagreement in online public space such as social media. The distribution of attitudes and willingness to express different opinions evolved over time. In the case of Fang Fang, commenters' attitudes dramatically changed over three months, and periodic patterns were apparent. From January to March 2020, Fang Fang's supporters outnumbered her detractors. Although she ceased posting her diary when the Wuhan lockdown was lifted on 25 March, Fang Fang continued engaging in COVID-19 issues on Weibo. Following this, the number of supportive comments and commenters on Fang Fang's Weibo sharply decreased, while opposing comments started to exceed their supportive counterparts. This trend suggests the emergence of a spiral of silence among commenters of Fang Fang and her *Wuhan Diary*. From 25 March onward, many of Fang Fang's former supporters and neutral bystanders gradually silenced themselves and exited the debate. Meanwhile, new participants generally adopted negative attitudes towards her.

[46] Chen, "Spiral of Silence on Social Media and the Moderating Role of Disagreement and Publicness in the Network"; Lee et al., "Social Media, Network Heterogeneity, and Opinion Polarization"; Sunstein, *#Republic: Divided Democracy in the Age of Social Media*; Zhu and Skoric, "From Context Collapse to 'Safe Spaces'".

Rethinking the Effects of Opinion Polarisation on Chinese Social Media

Empirical findings in this study have shown that during China's COVID-19 lockdowns, there was a shift from momentary attitudinal polarisation to information avoidance in shaping public opinion about Fang Fang and her *Wuhan Diary*. These findings highlight the need to analyse attitudinal polarisation in terms of processes such as the nature and manifestation of polarisation and the factors that may influence it. Past studies on issue-based opinion polarisation have examined polarisation through the theoretical lens of "extremity of rating/evaluation", whereas this study suggests that the polarisation of opinion should be understood within the context of attitude distribution and periodic changes. The data also revealed that social media communication and commentary patterns significantly influence how opinion polarisation develops or diminishes. The authors took into consideration the sample of Weibo commentary gathered over several months as a semi-public political discussion environment and monitored opinion distribution shifts following a disagreement over an issue-based political point. Such semi-public discussions, formed by comments on certain social media posts, have questionable characteristics. First, comments are sorted based on participant account weights and the number of likes they receive. Second, comments are collapsed and multilayered. Both features may foster like-minded opinions, making it challenging to generate an adequate diversity of opinion.

Furthermore, if depolarisation or an attitudinal mainstreaming trend arises, different responses to disagreement on social media may suggest possible bandwagon or spiral of silence effects. In such scenarios, the dominance of certain views reduces minority opinion holders' willingness to express their opinions.[47] The data showed that users' participation in the online debate was not continuous, with only about 12.14 per cent of commenters (3,884 out of 31,981 users in the first period) participating in both the first and third periods. This group included 12.29 per cent (2,037 out of 16,572) of initial supporters, 10.90 per cent (801 out of 7,346) of initial opponents and 12.97 per cent (1,046 out of 8,063) of commenters with an initially ambiguous attitude from the first period. Among these persistent participants, three quarters (605/801=75.53 per cent) of initial detractors kept their oppositional view to the end, while nearly half of the initial supporters (892/2,037=44.79 per cent) shifted away from being supportive. These changes imply that the majority of supporters and neutral observers silenced themselves.

Such a development likely relates to shifts in the climate of opinion—when media reports and discussions about Fang Fang began focusing on the publication of *Wuhan Diary* internationally in the third period, and expressions of nationalism started to emerge. Chinese political culture is noted for a low tolerance of political conflicts and disagreements. As mentioned above, for some Chinese netizens, avoiding political conflict may reflect a preference for network homophily, leading to "unfriending" and

[47] Dietram Scheufle and Patricia Moy, "Twenty-Five Years of The Spiral of Silence: A Conceptual Review and Empirical Outlook", *International Journal of Public Opinion Research* 12, no. 1 (2000): 3–28.

withdrawal from social media,[48] and self-imposed voice silencing due to communal pressure. Certain studies also highlight connections between political polarisation and audiences' perceptions of the climate of opinion and the belief in the importance of silencing others, suggesting that these effects are interrelated.[49] Although these insights capture the greater possibility of information avoidance among minority opinion holders, compared to majority holders, they do not fully explain the extent to which or why individuals choose to speak out. Nonetheless, the spiral of silence theory remains a potent explanation in various digital media contexts and could be considered a plausible explanation for the observed results.[50]

Pseudo Opinion Polarisation and Chinese Political Culture

How do the results of this study help us understand the Chinese political culture that shapes the dynamics of opinion (de)polarisation in online semi-public discussion spaces? The empirical analysis indicates that the apparent trends of polarisation should be viewed as a pseudo opinion polarisation phenomenon. While it is commonly accepted that discussions around Fang Fang's issues lead to attitudinal, emotional, and even ideological polarisation,[51] examining polarisation over time reveals that such attitudinal polarisation is momentary and transient. This study challenges two assumptions about online discussions concerning Fang Fang: (i) that "polarisation" actually occurred; and (ii) that previous research had misrepresented the extent of polarisation due to inapplicable measurement methods. The authors argue that the false impression of polarisation is not due to rapid changes in the state of polarisation, where public opinion splits could be altered by "fleeting" or "transient" shifts in very short timeframes. Instead, the evidence from this study indicates that in the case of Fang Fang's disputes, what appeared to be polarisation was merely a perception created by impressions, while a dominant opinion actually prevailed at any given moment. Therefore, the term "pseudo opinion polarisation" requires critical reflection given the extant findings about the debates concerning Fang Fang, and more importantly, given the potential conceptual and methodological misconceptions in polarisation studies within China and beyond.

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[48] Medaglia and Yang, "Online Public Deliberation in China"; Zhu and Skoric, "From Context Collapse to 'Safe Spaces'".

[49] Yariv Tsfati, Natalie Jomini Stroud and Adi Chotiner, "Exposure to Ideological News and Perceived Opinion Climate: Testing the Media Effects Component of Spiral-of-Silence in a Fragmented Media Landscape", *The International Journal of Press/Politics* 19, no. 1 (2014): 3–23.

[50] Chen, "Spiral of Silence on Social Media and the Moderating Role of Disagreement and Publicness in the Network"; Neumann, Kelm and Dohle, "Polarisation and Silencing Others During the COVID-19 Pandemic in Germany".

[51] Wu and Xu, "Attitudinal Polarization and Social Cascades among the Discourses of We Media"; Tang, Xu and Xing, "Ideological Positions, Sentiment, Attention and Selective Exposure".

In general, polarisation of attitudes and opinions requires the considerable and continuing presence of opposing expressions, a firm political stand and consistent ideological expression in the public sphere. Chinese political culture in online public debates could shape issue-based conflict and group members' reactions within interlocked opinion markets and could have uncertain consequences for public expression.[52] Strong and highly conflicting political contexts provide fertile ground for the emergence of social media polarisation.[53] Therefore, it is crucial to identify conditions under which digital media may or may not polarise public opinion. While controversies surrounding Fang Fang seemingly sparked intense online debates and divided public opinion, the nature of these conflicts was resolved at both individual and collective levels. On the individual level, public opinion topics and changes mirrored, in some degree, China's political spectrum, whereby netizens who self-proclaim as Maoists, nationalists, political conservatives, liberals and statists clashed. Nevertheless, these conflicts persisted only in netizens' short-term interactions and selective exposure.[54] Personal interpretations and opinions about the Wuhan lockdown shifted over two months, with changes in public focus and dominant discourses of COVID-19 prevention. Two recent studies suggest that news disclosures and topical elaboration could influence opinion depolarisation on Chinese social media,[55] with diplomatic topics often unilaterally "strongly support[ing]" the government's stance.[56] Discussions showed that a "false consensus" existed, where individuals holding more extreme views overestimated the prevalence of similar opinions. Although social media discourses around Fang Fang and *Wuhan Diary* reflected polarised ideologies, the issue focus and group consistency in three ideological groups (pro-state, liberal and populist) were also distinct.[57] In particular, nationalists and statists demonstrated a stronger tendency towards selective exposure, showing a preference for receiving uniform content that aligns with their expectations. In other words, polarised opinion more readily aligns with nationalist and statist positions, compared to other viewpoints. This study reveals that such shifts occurred when nationalistic discourses became more prevalent, following the lifting of the Wuhan lockdown.

On the collective level, China's prevailing collective-oriented political and cultural beliefs, whether in online or interpersonal political discussions, encourage the search for common ground and managing differences to achieve harmonious social relationships and consistency with others. Such a political culture, with lower conflict tolerance,

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[52] Cass R. Sunstein, *Going to Extremes: How Like Minds Unite and Divide* (Oxford: Oxford University Press, 2009).

[53] Lee et al., "Social Media, Network Heterogeneity, and Opinion Polarization".

[54] Tang, Xu and Xing, "Ideological Positions, Sentiment, Attention and Selective Exposure".

[55] Guo Jing and Hu Yang, "Does Social Media Use Polarize or Depolarize Political Opinion in China? Explaining Opinion Polarization Within an Extended Communication Mediation Model", *Social Media+ Society* 9, no. 3 (2023).

[56] Ma Deyong and Huang Minxuan, "Attitudes Polarization and False Consensus in Online Public Opinion", *Chinese Journal of Journalism & Communication* 45, no. 7 (2023): 47–73.

[57] Tang, Xu and Xing, "Ideological Positions, Sentiment, Attention and Selective Exposure".

attenuates polarised audience orientations and discussion topics within specific network structures on social media.[58] Platforms like WeChat likely reinforce government hegemony, with interpersonal discussions facilitating how positive government sentiments permeate private discourses within homogeneous networks.[59] In addition, the state-sponsored campaign for positive energy and the heroic nationalistic "war" against the pandemic further emphasised harmonious public sentiment and social consistency during COVID-19.[60] The impersonal influences of a mediated opinion climate supplied by mass media and the broader "imagined community" may have affected individual attitudes and perceived opinion directions during this period.[61] Mass media portrayals of Wuhan's lockdown, dominant political discourses and individual perceptions were collectively incorporated into ongoing cyber-nationalist articulations on Chinese social media. This study deepens the understanding of the importance of state-specific political and cultural modes in political discussion and opinion expression,[62] highlighting a culture oriented towards homogeneity and consistency shaping the environment in which discussions on social media take place and national pandemic prevention is presented.

The pseudo opinion polarisation observed suggests that Chinese social media's public discussion space may indeed foster ephemeral issue-based debates or divide public opinion. However, when disagreement and momentary opinion polarisation arose, higher-level political discourses (e.g. nationalism) could impede or reverse the polarisation process. Various dynamics pushed and pulled participants from opposite sides, creating multiple forces that shifted public opinion around a pivotal topic. Grand political discourses always prevailed, and opinion polarisation was replaced by the mainstream opinion expressions of mass nationalism.[63] This generated "meta discourse" as the pivot, preventing momentary polarised opinions from developing into enduring polarisation processes. According to the authors' observations and other ongoing work based on the same data set, nationalist ideology in issue-based political discussions on Chinese social media platforms reduces the discussion's conflictual nature. Moreover, the prime interest of the nation-state as the meta context is to achieve discourse mainstreaming, preventing either side from bypassing nationalism to evaluate events. The official political and grassroots mobilisation taking its roots from nationalism during the domestic COVID-19 pandemic prevention period has been noted by many

[58] Guo and Hu, "Does Social Media Use Polarize or Depolarize Political Opinion in China?".

[59] Yang Aimei and Rita Linjuan Men, "Political Information Use on WeChat and Political Discussion in China: Toward a Networked Political Discussion Model", *Chinese Journal of Communication* 13, no. 2 (2020): 129–47.

[60] Yang Guobin, *The Wuhan Lockdown* (New York: Columbia University Press, 2022).

[61] Diana C. Mutz, "Impersonal Influence: Effects of Representations of Public Opinion on Political Attitudes", *Political Behavior* 14, no. 2 (1992): 89–122.

[62] Matthew Barnidge et al., "Social Media as a Sphere for 'Risky' Political Expression: A Twenty-Country Multilevel Comparative Analysis", *The International Journal of Press/Politics* 23, no. 2 (2018): 161–82.

[63] He Danna and Tang Wenfang, "Constructed Community: Rise and Engines of Chinese Nationalism Under Xi Jinping", *Journal of Contemporary China* (April 2024): 1–23.

scholars. For example, this period saw a reinforced proliferation of political discourse, mobilising nation-state ideology through platformised features, such as hashtags, collaborative posting and bullet screen interactions.[64]

It is important to note that the data analysis in this study indicated that the publication of *Wuhan Diary* cannot be considered as the cause of cyber-nationalism. There may be other causes of cyber-nationalism, but in terms of timing, the publication event can be ruled out as a cause. However, through a two-step process, the publication of Fang Fang's *Wuhan Diary* seemed to facilitate the reduction of polarisation. First, the publication—especially after 8 April, when the media reported that Fang Fang's diary would be published internationally—contributed to an increase in cyber-nationalism, as participants in the discussion viewed the book as providing weapons to foreign countries to criticise China's COVID-19 policies and measures. As Figure 6 shows, a shift in dominant attitudes from supportive to opposing had already emerged by 1 April. A typical comment dated 7 April reflecting a nationalist narrative is as follows:

> *You're right and wrong. Honestly, I've listened to you a lot. At first, I thought you were telling the truth, then I felt you were being contradictory, and now it seems you are too critical! Is everything really perfect in foreign countries? Is our government really completely ineffective? Really, it's enough to act with a conscience and to find peace in one's heart.*

Second, the consensus, aligned with cyber-nationalism, had bolstered the opposition against Fang Fang, and weakened the support for her, therefore reducing the prominence of polarisation between the two opposing attitudes. After the publication of *Wuhan Diary*, dominant oppositional attitudes become increasingly visible, indicating a gradual reduction in the degree of polarisation.

The publication of *Wuhan Diary* coincided with the "triumph" over COVID-19, marked by the lifting of the Wuhan lockdown. Both events may have contributed to the rise of cyber-nationalism, which in turn shifted the dominant (or observable) attitude to opposing Fang Fang, because her stance on official measures was perceived as critical or negative. In essence, cyber-nationalism altered and mitigated the attitudinal polarisation. Fang Fang's case exemplifies how cyber-nationalism can transcend other issues and unify netizens' attitudes. This finding provides additional empirical evidence[65] of how the political use of social media can have a depolarising effect on certain groups of people under specific circumstances.

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[64] Chen Xu, David Bondy Valdovinos Kaye and Zeng Jing, "#PositiveEnergy Douyin: Constructing 'Playful Patriotism' in a Chinese Short Video Application", *Chinese Journal of Communication* 14, no. 1 (2021): 97–117; Florian Schneider, "China's Viral Villages: Digital Nationalism and the COVID-19 Crisis on Online Video-sharing Platform Bilibili", *Communication and the Public* 6, nos. 1–4 (2021): 48–66; Yang, *The Wuhan Lockdown.*

[65] Tetsuro Kobayashi, "Depolarization through Social Media Use: Evidence from Dual Identifiers in Hong Kong", *New Media & Society* 22, no. 8 (2020): 1339–58.

The following two comments are typical examples showing that both supportive and opposing commenters on Fang Fang during the third period employed nationalist discourse to express their opinions. The discourse altered the nature of the issue and political discussion, thereby defusing the tendency towards polarisation that led to disagreements.

> *I believe that a strong state will not collapse just because a book is published, and a confident government will not blame a writer for her book. People's lives in 2020 and beyond depend on the way their states and governments treat the new coronavirus, not on some trivial diary by Fang Fang.*
>
> (Supportive comment quoted by Fang Fang)

> *I'm a patriot, I don't care about left or right. As long as it's good for China, I'm in favour of it, and Fang Fang in this case is clearly not.*
>
> (Opposing comment against Fang Fang)

CONCLUSION

This article analyses the comments on Weibo on Fang Fang's posts and her *Wuhan Diary* over a three-month period during the COVID-19 outbreak in early 2020 in China. The findings indicate that pseudo attitudinal polarisation occurred in this semi-public discussion space, rather than genuine polarisation of public opinions in favour of Fang Fang. Polarisation of opinions and attitudes supporting Fang Fang manifested only at certain times and was influenced primarily by public events, rather than expressed as inherently polarised political positions among discussants. The empirical analysis did not substantiate the notion that prevailing polarisation trends exist in the semi-public discussion spaces of Chinese social media. While the article reflects on the conceptualisation and measurement of opinion polarisation, it also acknowledges the political and cultural complexities of online debate in the Chinese cybersphere. It further investigates the preconditions and dynamics that may alter polarisation processes and thereby theorises an alternative Chinese mechanism of political (de)polarisation.

The study's limitations are as follows. First, in terms of the observation timeframe, for various reasons Fang Fang did not post on Weibo for 20 days (from 4 to 24 February 2020) within the examined three-month window. Although she resumed uploading her diary after the break, this may have affected the coherence of the data collection, which was beyond the authors' control. The second limitation involves multilayer comments. Direct commentary was collected to obtain expressions of opinion dedicated solely to Fang Fang's posts and *Wuhan Diary*, to ensure consistent analytical focus. Thus, extended discussions under the first-layer comments were not examined. Future studies could attempt to collect multiple layers of user comments and examine users' publicly expressed behaviours and attitudes over time in greater detail.

ACKNOWLEDGEMENTS

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APPENDIX I
CODEBOOK FOR LABELLING ATTITUDE TENDENCIES IN WEIBO COMMENTS

Category	Description	Examples
Supportive comment	Directly and obviously supports Fang Fang and her stance, agrees with her posts, or encourages her, using words or emojis.	*"Thank you Fang Fang!"* *"Support Fang Fang!"* *"A real aware person of our time."* *"Great diary!"* *emojis: "[flower][candle]"*
Opposing comment	Directly and clearly opposes Fang Fang and her stance, disagrees with her posts, discourages her or even scolds her, using words or emojis.	*"Fang Fang is such a demon woman!"* *"You are a liar!"* *emojis: "[angry][cursing]"*
Ambiguous comment	Comments that cannot be unambiguously labelled as supportive or opposing:	
	(i) the subject being commented upon cannot be identified as Fang Fang's or her posts or publications;	*"Live well [pray][pray]"* *"Pray for Wuhan!"* *"The unruly officers should be caught!"*
	(ii) the comment does not clearly express an attitudinal tendency;	*"It's interesting!"* *"Everyone has his own perspective."* *"Have you become Fang Fang today [smile]?"*
	(iii) the comment consists only of emojis, thus preventing coders from clearly identifying the attitudinal tendency.	*emojis: "[tree][wind][dog]"*

Notes: This codebook provides guidelines for human coders for labelling the attitude of a given comment on Fang Fang's Weibo posts as *supportive*, *opposing* or *ambiguous*. Following adequate compilation of high-quality human-labelled data, the authors trained the bidirectional encoder representations from transformers (BERT) model to label more comments.

APPENDIX II
STATISTICS FOR COMMENTS AND COMMENTERS DEMONSTRATING DIFFERENT ATTITUDES OVER THE THREE PERIODS

	Attitude	First Period	Second Period	Third Period	Total
Comments	Supportive	35,824 (55.35%)	4,412 (38.88%)	13,913 (30.11%)	54,149 (44.28%)
	Oppositional	16,275 (25.15%)	5,507 (48.53%)	28,646 (61.99%)	50,428 (41.24%)
	Ambiguous	12,625 (19.51%)	1,429 (12.59%)	3,649 (7.90%)	17,703 (14.48%)
	Total	64,724 (100%)	11,348 (100%)	46,208 (100%)	122,280 (100%)
Commenters	Supportive	16,572 (51.82%)	2,782 (37.11%)	5,825 (26.98%)	25,179 (41.23%)
	Oppositional	7,346 (22.97%)	3,325 (44.36%)	12,439 (57.62%)	23,110 (37.84%)
	Ambiguous	8,063 (25.21%)	1,389 (18.53%)	3,325 (15.40%)	12,777 (20.92%)
	Total	31,981 (100%)	7,496 (100%)	21,589 (100%)	61,066 (100%)

APPENDIX III
Performance of the BERT Model for Labelling the Attitude of Comments

Comment Attitude	Precision	Recall	F1
Supportive	0.826	0.800	0.863
Oppositional	0.877	0.857	0.789
Ambiguous	0.850	0.828	0.824
Average	0.830	0.841	0.834

APPENDIX IV
Terms Associated with Nationalism (Chinese Words and English Translations)

Chinese	English	Chinese	English
国外 (guowai)	abroad	日本 (Riben)	Japan
反华势力 (fan Hua shili)	anti-China forces	龙应台 (Long Yingtai)	Long Yingtai
卖国 (maiguo)	betray the country	大陆 (Dalu)	mainland
卖国求荣 (maiguoqiurong)	betray the country for prosperity	母亲 (muqin)	mother
圣经 (shengjing)	Bible	祖国 (Zuguo)	motherland
义和团 (yihetuan)	Boxer rebellion	国贼 (guozei)	national traitor
英国 (Yingguo)	Britain	民族 (minzu)	nationality
特朗普 (Telangpu)	Trump	全国 (quanguo)	nationwide
华人 (Huaren)	Chinese	纽约 (Niuyue)	New York
中国政府 (Zhongguo zhengfu)	Chinese government	我国 (woguo)	our country
国人 (guoren)	Chinese people	海外 (haiwai)	overseas
中美 (ZhongMei)	Chinese-America	海外版 (haiwaiban)	overseas edition
老百姓 (laobaixing)	common people	爱国者 (aiguozhe)	patriot
同胞 (tongbao)	compatriots	爱国 (aiguo)	patriotic
人民 (renmin)/ 民众 (minzhong)	people	国家 (guojia)	country
		粉红 (fenhong)	pink
英文版 (Yingwen ban)	English version	秦桧 (Qin Hui)	Qin Hui
欧美 (OuMei)	Europe and America	中华民国 (Zhonghua minguo)	Republic of China
外国 (waiguo)	foreign country	新加坡 (Xinjiapo)	Singapore
境外势力 (jingwaishili)	foreign forces	台湾 (Taiwan)	Taiwan
外国人 (waiguoren)	foreigner	台独 (Taidu)	Taiwan independence
德文版 (Dewen ban)	German version	美方 (Meifang)	The American side
全球 (quanqiu)	global	西方 (xifang)	The west
出国 (chuguo)	go abroad	全世界 (quanshijie)	The whole world
大国 (daguo)	great power	反华 (fan Hua)	anti-China
祸国殃民 (huoguoyangmin)	harm the country and the people	统一 (tongyi)	unification
香港 (Xianggang)	Hong Kong	美国 (Meiguo)	United States
黄智贤 (Huang Zhixian)	Hwang Ji-hyun	汪精卫(Wang Jingwei)	Wang Jingwei
国际 (guoji)	international	世界 (shijie)	world
意大利 (Yidali)	Italy		

Urban Pollution Governance, Prosecutor-led Environmental Public Interest Litigation and Regional Environmental Disparities in China: Evidence from 282 Cities

WU Wanqiang, Peter C.H. CHAN and LIN Xifen

Experts frequently discuss the reduction of regional environmental disparities in China, but they often overlook the role of the judiciary, particularly prosecutor-led environmental public interest litigation. Using cases of such litigation initiated by intermediate and basic procuratorates, and economic and pollution data of 282 cities for the 2018–21 period, this article demonstrates that prosecutor-led environmental public interest litigations have the potential to reduce China's environmental disparities in general. However, their implementation varies according to cities' respective level of economic development. This diversity arises from at least three primary factors: more affluent cities may possess more prosecutors with stronger environmental awareness; these cities have more litigation resources for this type of litigation; and they have greater procuratorial autonomy in the local economy, albeit weaker protection, that allows for initiating more prosecutor-led environmental public interest litigations. This article highlights the importance of prosecutor-led environmental public interest litigation in mitigating environmental disparities in China. It recommends increased investment in litigation resources, enhanced personnel training and greater judicial autonomy in less economically developed cities to amplify the impact of such litigation efforts in reducing such disparities.

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INTRODUCTION

China, as a low- to middle-income country,[1] has grappled with cross-regional disparities, a long-term critical issue that has affected millions of people. In response, the Chinese government has worked tirelessly to address such disparities. In October 2017, the Communist Party of China (CPC) revised the Constitution to include the view that "clear waters and green hills are mountains of gold and silver" (*lüshui qingshan jiushi jinshan yinshan*),[2] establishing it as one of the Party's key governing ideas. Consequently, addressing environmental disparities among regions has become a top priority for all sectors in China.

As administrative oversight failures in environmental regulation become increasingly concerning,[3] the government places great importance on legal instruments. Notably, the 2017 establishment of the prosecutor-led environmental public interest litigation (EPIL) system by the Supreme People's Procuratorate (SPP) was a highly anticipated initiative among other varied judicial efforts. Immediately following the implementation, prosecutors across China initiated 1,737, 2,309 and 3,453 EPIL cases in 2018, 2019 and 2020, respectively.[4] Prosecutorial authorities won over 99 per cent of these cases.[5] The average annual increase of 41.42 per cent in litigation cases and an exceptionally high success rate indicate Chinese procuratorates' active role in addressing environmental issues and achieving some success.[6]

Despite these developments, existing evidence may have not been sufficiently robust to convince all scholars of the effectiveness of China's prosecutor-led EPIL in protecting the environment and reducing environmental inequalities between regions. For example, while some empirical studies have demonstrated the effectiveness of

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[1] World Bank Group, "Data for Low & Middle Income, China", at <https://data.worldbank.org/?locations=XO-CN> [13 April 2023].

[2] Gongchangdang wang (www.12371.cn), "Zhongguo gongchandang zhangcheng (2017 xiuzhengan)" (Constitution of the Communist Party of China) (2017 Revision), 22 October 2022, at <https://www.12371.cn/special/zggcdzc/?sw=dworb> [31 January 2023].

[3] Guo Wu, "On China's Linkage Model of Environmental Administration and Environmental Judicature" (in Chinese), *Law Review* 2, no. 186 (2017): 183–96.

[4] Supreme People's Court of the People's Republic of China (PRC), "Zhongguo huanjing ziyuan shenpan (2017–2018)" (China Environmental Resources Trials [2017–2018]), 18 October 2018, at <http://wej.court.gov.cn/news/view-54.html> [31 January 2023]; "Zhongguo huanjing ziyuan shenpan (2019)" (China Environmental Resources Trials [2019]), at <http://wej.court.gov.cn/news/view-36.html#> [31 January 2023]; "Zhongguo huanjing ziyuan shenpan (2020)" (China Environmental Resources Trials) (2020), at <https://www.courtbook.com.cn/cxrm/33418.jhtml> [31 January 2023].

[5] Wu Wanqiang and Lin Xifen, "Constrained Power Expansion: China's Procuratorial Reforms within and beyond Criminal Justice", *Modern China* 5, no. 5 (2024): 285.

[6] Lü Zhongmei and Zhang Zhongmin, "Huanjing sifa 2021: tuidong Zhongguo huanjing sifa tixijianshe maixiang xinzhengcheng" (Environmental Justice 2021: Advancing China's Environmental Justice System on a New Journey), June 2022, at <https://www.antpedia.com/attachments/att/file/20220628/1656383903909464.pdf> [31 January 2023].

China's environmental judicial reforms in reducing pollution,[7] sceptics contend that environmental protection has yet to become a core priority in China's political system and that these reforms' practical impact is further limited by weak local enforcement, bureaucratic overlap and local government interference.[8] These institutional barriers are believed by such sceptics to significantly diminish the intended effects of China's environmental judicial reforms.

This article discusses the effects of prosecutor-led EPIL on environmental disparities by empirically examining prosecutor performance on such cases in cities with different economic and pollution levels. The authors compiled novel data on 7,142 prosecutor-led EPIL cases from 2018 to 2021, and economic development and pollution data from 282 prefecture-level and above cities between 2018 and 2021.[9] Unlike past research focusing on single environmental pollution indicators,[10] the authors employ a comprehensive and integrative set of comparable environmental pollution metrics. Methods include principal component analysis that synthesises the three variables of air, water and solid waste pollution into a single comparable variable, i.e. the environmental pollution index, as well as propensity score matching and linear regression analysis.

This article aims to address the following key questions: (i) Can prosecutor-led EPIL mitigate environmental inequalities in China? (ii) To what extent can prosecutor-led EPIL reduce these inequalities? (iii) What are the potential barriers to the efforts of prosecutor-led EPIL? (iv) How can procuratorial authorities overcome these obstacles to reduce environmental inequalities?

The article is structured as follows. The second section introduces the institutional background. The third discusses the data, variables construction and method. The fourth presents the findings and examines the impact of prosecutor-led EPIL on

[7] For example, Chen, Shao and Wang's study of 143 cities showed that environmental public interest litigation significantly reduced industrial wastewater discharge. Chen Tianhao, Shao Jianshu and Wang Xuechun, "Evaluation and Improvement of the Prosecutorial Administrative Public Interest Litigation System: An Empirical Analysis Based on the Difference-in-Differences Method" (in Chinese), *Peking University Law Journal* 32, no. 5 (2020): 1328–52.

[8] Xu Guangdong and Michael Faure, "Explaining the Failure of Environmental Law in China", *Columbia Journal of Asian Law* 29, no. 2 (2016): 1–96.

[9] To the authors' knowledge, there are a total of 297 prefecture-level and above cities in China. However, after matching the caseload data with economic and pollution data, the authors obtained observation data for 282 cities over four years.

[10] Zhang Junfeng, "Environmental Health in China: Progress towards Clean Air and Safe Water", *The Lancet* 375, no. 9720 (2010): 1110–9; Tu Peiyue, "Exposure and Inequality of $PM_{2.5}$ Pollution to Chinese Population: A Case Study of 31 Provincial Capital Cities from 2000 to 2016", *International Journal of Environmental Research and Public Health* 19 (2022): 12137; Han Zhiyong et al., "A Review of Ground Water Contamination near Municipal Solid Waste Landfill Sites in China", *Science of the Total Environment* 569–570 (2016): 1255–64; Tang Jiexin, Wang Qunwei and Choi Gyunghun, "Efficiency Assessment of Industrial Solid Waste Generation and Treatment Processes with Carry-over in China", *Science of the Total Environment* 726 (2020): 138274.

China's environmental disparities and policy implications. The concluding section highlights the analysis and limitations.

INSTITUTIONAL BACKGROUND

This section examines the development, roles and challenges of EPIL in environmental protection and equity. It explores China's legislative initiatives to enhance environmental standards and discusses how local economic protectionism has hindered these efforts. It explains the establishment and benefits of prosecutor-led EPIL, emphasising judicial autonomy as a key solution to resolve local economic protectionism. The authors also establish a theoretical framework, following their review of the development issues and practices of EPIL, to argue that prosecutor-led EPIL is the most promising judicial approach under the current legal framework to addressing Chinese environmental issues.

Theory and Practice of Environmental Public Interest Litigation

Environmental public interest litigation serves as a crucial supplementary mechanism to protect the environment and promote environmental equity by mobilising citizens, social organisations and governmental bodies to take legal action against polluters in the public interest, after governmental regulations and market forces have failed to address environmental issues. Its inception can be traced to the environmental movements of the 1970s in the United States[11] when the necessity for legal action to protect public environmental interests became evident. The public directed their initial efforts towards addressing legislative and enforcement gaps that permitted environmental degradation to continue.[12] Over time, EPIL has evolved from its American origins into a global legal framework, and has also transformed from merely enforcing compliance with environmental laws to becoming a broader catalyst for environmental justice and social equity.[13]

A substantial body of related empirical research corroborates EPIL's efficacy in fostering environmental protection and equity. However, its strategic application could limit its efficacy. For example, in India, EPIL has proven effective in protecting the environment where special interest groups influence regulatory bodies or where corruption impedes enforcement. The Ganges River is one successful example of the

[11] Riley E. Dunlap and Angela G. Mertig, "The Evolution of the US Environmental Movement from 1970 to 1990: An Overview", *Society & Natural Resources* 4, no. 3 (1991): 209–18.

[12] Jacqueline Peel and Hari M. Osofsky, *Change Litigation: Regulatory Pathways to Cleaner Energy* (Cambridge University Press, 2015), p. 28.

[13] Andrea Durbach et al., "Public Interest Litigation: Making the Case in Australia", *Alternative Law Journal* 38, no. 4 (2013): 219–23.

mitigation of air and water pollution.[14] However, because EPIL often involves challenging powerful government entities or interest groups, resource-constrained social organisations, such as nongovernmental organisations (NGOs), may opt to focus on cases within specific and sometimes excessively high-risk domains.[15]

While engaging in high-risk cases can offer NGOs potential benefits like enhanced reputation and financial compensation, addressing a large number of "low-value" cases may exert a more substantial impact on environmental health. Furthermore, focusing primarily on "high-value" cases may inadvertently exacerbate environmental inequalities.

Although EPIL has achieved global success, its legal frameworks exhibit considerable variations between countries, particularly in theoretical doctrines and plaintiff qualifications. Certain aspects of these frameworks are not entirely conducive to the advancement of public-driven EPIL. For instance, in countries adhering to the Weberian civil law tradition, like Germany, the rule of law centres on the doctrine of individual public rights. This approach allows litigation only when administrative authorities violate a plaintiff's rights and thus lacks a system for judicial review based purely on the public interest.[16]

However, determining when a norm grants individual public rights is highly challenging and strict doctrine may restrict public participation in EPIL by mandating the government to protect the environment. Even in the United States, where greater public involvement is ostensibly encouraged by allowing anyone to initiate EPIL, numerous plaintiff qualification tests significantly restrict public involvement. For example, US courts often employ the ambiguous "zone of interests" test to restrict citizen engagement in EPIL cases.[17]

In summary, while efforts have been made in various legal jurisdictions to encourage public participation in EPIL, limitations posed by theoretical doctrines and existing or preceding laws suggest that advancing EPIL should not overlook the role of governmental departments and judicial organisations.

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[14] A.V. Raja and Francis Rathinam, "Economic Efficiency of Public Interest Litigations (PIL): Lessons from India", Munich Personal RePEc Archive, Paper no. 3870, 2005, paper presented at the first annual conference of the Asian Law and Economics Association, Seoul National University, Seoul, South Korea; Michael G. Faure and Angara V. Raja, "Effectiveness of Environmental Public Interest Litigation in India: Determining the Key Variables", *Fordham Environmental Law Review* 21, no. 2 (2010): 239–94.

[15] Xie Lei and Xu Lu, "Environmental Public Interest Litigation in China: A Critical Examination", *Transnational Environmental Law* 10, no. 3 (2021): 441–65.

[16] Nicholas Campbell, "Individual Rights and the Environmental Public Interest: A Comparison of German and Chinese Approaches to Environmental Litigation", *Review of European, Comparative & International Environmental Law* 32, no. 1 (2023): 105–18.

[17] Bradford C. Mank, "Prudential Standing and the Dormant Commerce Clause: Why the Zone of Interests Tests Should Not Apply to Constitutional Cases", *Arizona Law Review* 48 (2006): 23.

China's Environmental Legislation and Its Local Economic Protectionism

China initially aimed to address environmental issues by implementing increasingly stringent legislation and regulations at both national and local levels. The first environmental legal instrument, the "Environmental Protection Law (Trial)", was enacted in 1979. Although this was a significant step forward in China's environmental protection, the superficial legislative philosophy and techniques were inadequate to address the increasingly severe environmental challenges posed by economic growth and to meet international concerns about global environmental and development issues. The Constitution, revised in 1982, further emphasised environmental and natural resource protection, mandating the state to preserve and improve ecological and living environments. China's legislative body amended the Environmental Protection Law to implement the Constitution and issued specific laws protecting the ocean, water resources and the atmosphere. However, the expanding legislation appeared ineffective in stopping the deterioration of China's environment. In 2014, the Central Committee of the CPC proposed protecting the ecological environment with the strictest legal frameworks and again revised the Environmental Protection Law, along with approving and amending dozens of related laws. Beyond the central legislative efforts, local governments also actively formulated local regulations for environmental protection, averaging six environmental protection regulations annually between 1996 and 2004, with a notable peak in 2002 when 11 regulations were approved.[18]

Tightening environmental laws has prompted a positive response at the corporate level, especially among state-owned enterprises, which applied for significantly more environmental patents following the enactment of new environmental laws.[19] However, despite intensified legislation and regulations, empirical studies suggest that the legislation may have limited effectiveness in improving environmental quality.[20] The enactment of local environmental regulations has not significantly reduced pollution emissions, possibly due to the enforcement reliance on local environmental bureaux whose capacity and dependence on local governments may constrain their effectiveness,[21] as they tend to prioritise local economic development.

China's local economic protectionism emerged after the "reform and opening up" period when China transitioned from a highly centralised planned economy to a market economy. With the central government's decentralisation, local governments expanded their power, shifting from non-stakeholders to stakeholders in local economic development. This change led local governments to focus on central government

[18] Bao Qun, Shao Min and Yang Dali, "Environmental Regulation, Local Legislation and Pollution Control in China", *Environment and Development Economics* 26, no. 4 (2021): 321–39.

[19] Liu Yuyu, Wang Aiguo and Wu Yuqing, "Environmental Regulation and Green Innovation: Evidence from China's New Environmental Protection Law", *Journal of Cleaner Production* 297 (2021): 126698.

[20] Bao, Shao and Yang, "Environmental Regulation, Local Legislation and Pollution Control in China".

[21] Ma Yi and Xiang Wen, "Enforcing Law Through Authoritarian Environmentalism? State and Non-State Actors in China's Environmental Public Interest Litigation", *Journal of Current Chinese Affairs* 52, no. 3 (2023): 464–87.

directives and boost the local economy. Moreover, the growth rate of the gross domestic product (GDP) and local fiscal revenue have long been key indicators in assessing subordinate officials by the superior government.[22] Therefore, local officials employ every means available to ensure economic growth, including protecting high-value local industries from bankruptcy.[23]

However, local economic protectionism poses potential risks to environmental protection and equity by causing wasteful duplication of construction resources and an excessive pursuit of economic aggregates, thus overlooking externalities of economic pursuit[24] like environmental damage. One effective solution to tackle economic protectionism is to decouple officials' career advancement from the economic growth of their regions.[25] Until the government is able to achieve this, investigating how an autonomous judiciary can curb local economic protectionism remains a crucial research area for legal economists. With environmental enforcement lagging behind environmental legislation, China may struggle to enhance environmental protection and equity through legislation and administrative regulation alone. Such a gap between enforcement and legislation could be a significant factor contributing to the rise of prosecutor-led EPILs.

China's Prosecutors and the Prosecutor-led Environmental Public Interest Litigation (EPIL)

Unlike their counterparts in the United States and Europe, who focus primarily on criminal cases,[26] Chinese prosecutors have the authority to handle cases outside of criminal matters. The Chinese Constitution positions procuratorates as neutral organs for legal supervision,[27] which broadly confers on them considerable powers and responsibilities. The Organic Law of the People's Procuratorate defines the procuratorate's duties, which include supervising police investigations, examining criminal cases and deciding on arrests, instituting public interest litigation and supervising litigation activities.[28] Essentially, a procuratorate's core function is to ensure the correct and uniform application of national laws (not just criminal laws) by exercising legal supervisory powers.

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[22] Zhang Weiying and Li Shuhe, "Interregional Competition and the Privatization of Chinese State-owned Enterprises", *Economic Research Journal* 12 (1998): 13–22.

[23] Ping Xinqiao, "The Incentives and Effects of Government Protection: An Empirical Analysis" (in Chinese), *Finance & Economics* 5 (2004): 3–10.

[24] Ibid.

[25] Alwyn Young, "The Razor's Edge: Distortions and Incremental Reform in the People's Republic of China", *The Quarterly Journal of Economics* 115, no. 4 (2000): 1091–135.

[26] Gwladys Gilliéron, *Public Prosecutors in the United States and Europe: A Comparative Analysis with Special Focus on Switzerland, France, and Germany* (Berlin: Springer, 2013), p. 1.

[27] "Zhonghua renmin gongheguo xianfa" (The Constitution of the People's Republic of China), 22 March 2018, at <http://www.gov.cn/guoqing/2018-03/22/content_5276318.htm> [31 January 2023].

[28] The National People's Congress of the PRC, "Zhonghua renmin gongheguo renmin jianchayuan zuzhifa" (Organic Law of the People's Procuratorate), at <http://www.npc.gov.cn/npc/c12435/201810/b59a94f891794d9980e950c5cd8a0204.shtml?utm_source=UfqiNews> [31 January 2023].

For several decades after its founding, the PRC generally confined the legal supervision function of its procuratorial authorities to criminal justice, such as investigating corruption and misconduct, approving arrests and public prosecutions. However, in early 2019, to align with China's overall legal reform, the Supreme People's Procuratorate (SPP) introduced the "four major procuratorial activities" (*sida jiancha*) concept, classifying and expanding the procuratorial functions into criminal, civil, administrative and public interest litigation,[29] and gradually transitioning from an agenda focused on criminality itself to a balanced one that includes these four domains. Prosecutor-led EPIL is among the procuratorate's most vital and promising responsibilities beyond criminal litigation activities.

The "four major procuratorial activities" encourage Chinese prosecutors to be proactive and responsible in civil, administrative and public interest lawsuits, particularly public interest litigation. This commitment aims to form a stable exchange with the state, securing state support for expanding their powers.[30] Recognising the procuratorial interest, the Central Committee of the CPC issued the first document related to procuratorial work in June 2021, endorsing the procuratorates' participation in public interest areas.[31] Consequently, besides being crime fighters and legal supervisors, prosecutors have become social governors, with environmental improvement as their key objective.[32]

Once authorised to initiate public interest litigation, China's procuratorates emerged as pivotal forces in EPIL, despite their lower rank compared to other organisations within the legal framework. Under the Civil Procedure Law, prosecutors can file an EPIL case if ecological harm is detected and no other designated organisation can act.[33] The procuratorate should therefore remind other qualified organisations to initiate civil EPIL before directly filing an EPIL case. When dealing with environmental

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[29] Lin Xifen and Wu Wanqiang, "Something Lost, Something Gained: Changes in China's Procuratorate in Response to the Reform of the National Supervision System", *China Law and Society Review* 6, no. 1 (2022): 79–110.

[30] The stable exchange with the state is crucial to the power expansion of the legal profession in China. See Liu Sida, *The Logic of Fragmentation: An Ecological Analysis of the Chinese Legal Services Market* (Nanjing: Yilin Press, 2017), p. 16.

[31] The Supreme People's Procuratorate of the People's Republic of China, "Zhonggong zhongyang guanyu jiaqiang xinshidai jiancha jiguan falü jiandu gongzuo de yijian" (Opinions of the Central Committee of the Communist Party of China on Strengthening the Legal Supervision of Procuratorates in the New Era), 15 June 2021, at <https://www.spp.gov.cn/tt/202108/t20210802_525619.shtml> [31 January 2023].

[32] Peter C.H. Chan and Wu Wanqiang, "From 'Line Appraisal' to 'Case-Process Ratio': Will the New Case Quality Assessment System Facilitate the Changing Role of Chinese Prosecutor?", *Hong Kong Law Journal* 54, no. 1 (2024): 212.

[33] Currently, these designated organisations are usually relevant authorities and qualified social public interest organisations specialising in environmental protection. The National People's Congress of the People's Republic of China, "Zhonghua renmin gongheguo minshi susongfa" (Civil Procedure Law of the People's Republic of China), at <https://flk.npc.gov.cn/detail2.html?ZmY4MDgxODE3ZWQ3NjZlYTAxN2VlNmFiOTlhZDFjYmM> [31 January 2023]..

pollution involving administrative agencies, the procuratorate should first advise the administrative authorities to enforce environmental laws. If these authorities fail to comply, the procuratorate can initiate an administrative EPIL.[34] Despite being the last in line, after the government and qualified social organisations, to file an EPIL case, the procuratorate is still highly effective. Prosecutors have initiated 95 per cent of EPIL cases and won nearly all of them, with amounts ranging from small sums to millions of dollars.[35] Currently, procuratorates are officially recognised by the Supreme People's Court (SPC) as the dominant force in EPIL.[36]

The procuratorates' success in EPIL is attributed to three key factors. First, since social organisations face stringent legal restrictions on plaintiff qualifications and cannot initiate administrative EPIL,[37] their participation in such cases is limited. By contrast, procuratorates are not subject to these restrictions and can initiate civil and administrative EPIL nationwide. Second, EPIL cases often require years to conclude, involving extensive investigations, evaluations and legal fees,[38] posing significant challenges for many social organisations in China. Procuratorates, supported by tax revenue, do not face these financial constraints.

Third, the procuratorate, as a relatively powerful institution within China's legal system, is endowed with abundant litigation resources. While the authority to initiate EPIL has existed for less than a decade, prosecutors have swiftly developed an efficient litigation model, due to the high volume of cases and extensive litigation experience gained by practice.[39] Through the procuratorial system, they can also altruistically share this model with procuratorates in other regions. This established framework is far more effective than the approach typically used by social organisations, which often rely on temporary legal teams.

While the ultimate goal of EPIL is to maximise public participation, under China's current legal framework, procuratorates are the most effective means to enforce environmental laws and protect the environment, at least in the short term. They also

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[34] The National People's Congress of the People's Republic of China, "Zhonghua renmin gongheguo xingzheng susongfa" (Administrative Procedure Law of the People's Republic of China), at <http://www.npc.gov.cn/npc/c30834/201706/2579219236d64f59967f077e3a8cf739.shtml> [31 January 2023].

[35] Xie Lei and Xu Lu, "Environmental Public Interest Litigation in China: Findings from 570 Court Cases Brought by NGOs, Public Prosecutors, and Local Government", *Journal of Environmental Law* 34, no. 1 (March 2022): 53–81.

[36] Lü and Zhang, "Huanjing sifa 2021: tuidong Zhongguo huanjing sifa tixijianshe maixiang xinzhengcheng" (Environmental Justice 2021: Advancing China's Environmental Justice System on a New Journey).

[37] To qualify, social organisations or environmental NGOs must be legally registered with the civil affairs departments of cities at or above the prefectural level. Furthermore, only those engaged in environmental protection public interest activities for over five consecutive years and who have not engaged in any illegal activities are eligible to file civil EPIL against actions that cause environmental pollution or ecological damage. See Article 58 of the Environmental Protection Act.

[38] Hao Zhuang and Steven A. Wolf, "Environmental Public Interest Litigation: New Roles for Civil Society Organisations in Environmental Governance in China", *Environmental Sociology* 7, no. 4 (2021): 393–406.

[39] Xie and Xu, "Environmental Public Interest Litigation in China".

hold potential to overcome local economic protectionism and promote environmental equality.[40] By focusing on cases that benefit the public interest rather than specific individuals or groups, prosecutors can reduce the impact of local politics on judicial decisions. Overall, addressing environmental issues and local protectionism in China remains a severe challenge that necessitates ongoing reform efforts, with procuratorate engagement being essential.

DATA AND METHODS

This article comprehensively investigates prosecutor-led EPIL in China's intermediate and basic-level courts between 2018 and 2021. The authors attempt to compile all national prosecutor-led EPIL cases in these courts during this period. They collected 2018 to 2021 data on economic development and environmental pollution for 282 cities at prefecture level and above[41] from the *China Statistical Yearbook* for those years. The authors chose to focus on cities at prefecture level and above because provincial-level panel data are limited in quantity and lack detail, while county-level panel data are overly abundant yet incomplete. Utilising city-level data is therefore the optimal choice.

Methodologically, we primarily employed two analytical approaches: principal component analysis and propensity score matching. Appendices I and II briefly outline the methodology used in this article.

Compilation of Caseloads of Prosecutor-led Environmental Public Interest Litigation (EPIL)

The data for this study on China's EPIL cases initiated by intermediate and local procuracies were sourced online from *Fa Xin* (*Legal Information*, at <https://www.faxin.cn>). *Fa Xin*, established by the SPC and managed by the People's Court Publishing Group, is China's largest legal knowledge and case data platform. Its official authority and comprehensiveness were the primary reasons for choosing it for data collection.

The authors conducted a comprehensive retrieval of all public interest litigation cases initiated by basic-level and intermediate-level procuratorates in criminal, civil and administrative proceedings from 2018 to 2021. The specific search criteria are presented in Table 1. The resultant data set gathered for analysis includes prosecutor-led EPIL cases, totalling 1,259 in 2018, 2,270 in 2019, 3,436 in 2020 and 1,407 in 2021.

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[40] Chen, Shao and Wang, "Evaluation and Improvement of the Prosecutorial Administrative Public Interest Litigation System" (in Chinese).

[41] The administrative division of prefecture-level cities in China is a ranking slightly below the provinces and above the county level. These cities are not merely urban centres but also administrative jurisdictions that may include other cities, towns and rural areas within their boundaries. Additionally, China has four municipalities directly under the central government, which are at the provincial level and rank above prefectures, although they are formally considered large cities. This article includes them as well.

TABLE 1
Data Search Criteria

Type of Litigation	Data Search Criteria
Criminal Litigation	1. Adjudication years: 2018–2021. 2. Specific offences include: environmental damage crimes, major environmental pollution accidents, illegal disposal of imported solid waste, unauthorised import of solid waste, illegal fishing, illegal hunting and killing of precious and endangered wild animals, illegal acquisition, transportation and sale of precious and endangered wild animals, illegal hunting, illegal occupation of arable land, illegal mining, destructive mining, illegal logging, destruction of plants of national importance, theft of forest trees, indiscriminate logging, illegal acquisition and transportation of stolen and indiscriminately logged forest trees, illegal occupation of agricultural land, illegal acquisition, transportation, processing and sale of plants of national importance and products of plants of national importance, and environmental pollution. 3. Full text includes: "public interest litigation". 4. Cases heard at: intermediate and basic-level courts.
Civil Litigation	1. Adjudication years: 2018–2021. 2. Specific causes of action include: liability disputes over pollution affecting the environment, air, water, noise, radiation, soil, e-waste, and solid waste. 3. Full text includes: "public interest litigation" and "procuratorate". 4. Cases heard at: intermediate and basic-level courts.
Administrative Litigation	1. Adjudication years: 2018–2021. 2. Full text includes: "public interest litigation" and "procuratorate". 3. Issues related to: the environment, atmosphere, water, noise, radioactivity, soil, e-waste, solid waste, light, and ecology. 4. Cases heard at: intermediate and basic-level courts.

Variables Construction

Environmental pollution is classified into three categories: air, water and solid waste. To measure air pollution, citywide emissions of sulphur dioxide (in tonnes) and nitrogen oxides (NO_x, in tonnes), as well as average annual concentrations of respirable particulate matter (μg/m^3) were used. These three variables were combined in principal component analysis (PCA) into a single air pollution variable. Water pollution was measured by the city's industrial wastewater emissions (in million tonnes) and solid waste pollution was gauged by the city's emissions of industrial solid waste that is not treated in an environmentally sustainable way (in million tonnes). These three pollution variables—air, water and solid waste—compose the single environmental pollution index (*Pollution*) using PCA. The logarithm of the city's GDP was utilised to measure the level of local economic development. Descriptive statistics of the data are presented in Table 2.

The findings reveal that, on average, each locality had 6.54 environmental public interest litigation cases per year. About 13 per cent of city–year observations recorded no filing of EPIL cases in a given year and approximately five per cent reported more than 20 cases in a given year.

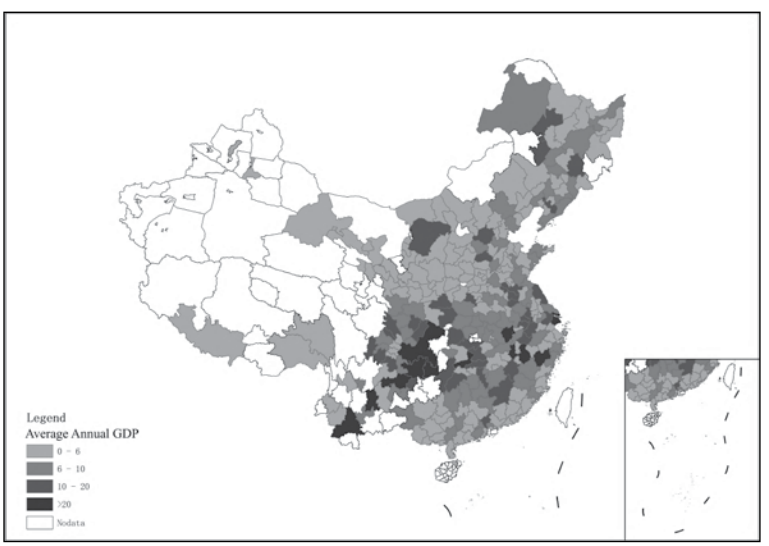
Figures 1 to 3 illustrate China's average annual cases, pollution index and GDP by city between 2018 and 2021, with darker colours indicating higher values. The graphs show a strong correlation between the number of environmental public interest litigation cases, the level of environmental pollution and the degree of economic development.

TABLE 2
SUMMARY STATISTICS

	Mean	Std. Dev.	Min.	Max.
No. of cases	6.54	8.60	0	103
Pollution	7.39	1	3.57	11.5
Air Pollution	25.84	3.59	11.2	42.8
Water Pollution	2.07	0.68	0.79	9.65
Solid Pollution	232	67.2	104	1,859
Ln(GDP)	26.5	32.1	1.35	269.3

Note: Observations n=1,128.

Figure 1. Average Annual No. of Procuratorial Environmental Public Interest Litigation Cases by City, 2018–21



Source: Fa Xin (https://www.faxin.cn).

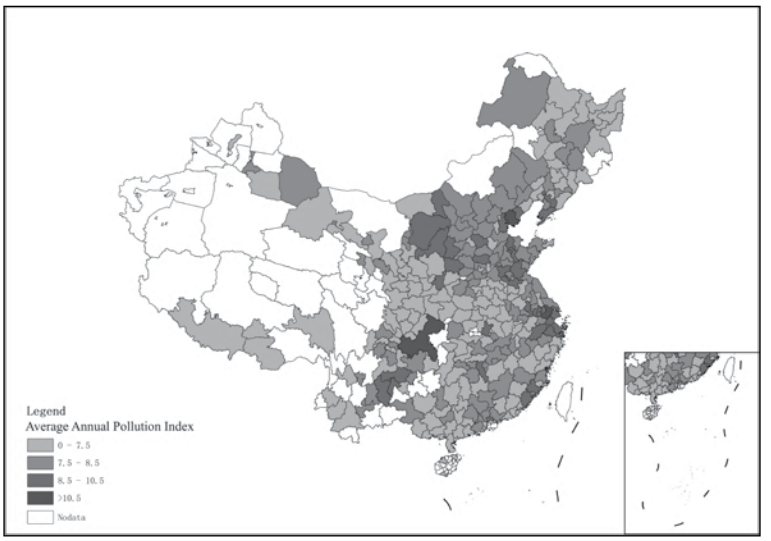
Results

Following the theoretical analysis of how environmental pollution levels impact local prosecutor-led environmental public interest litigation cases, the empirical effects were estimated using a fixed effects regression model, expressed as:

$$Number\ of\ Cases_{i,t} = \alpha + \beta \times Pollution_{i,t} + City_i + Year_t + \varepsilon_{i,t} \quad (1)$$

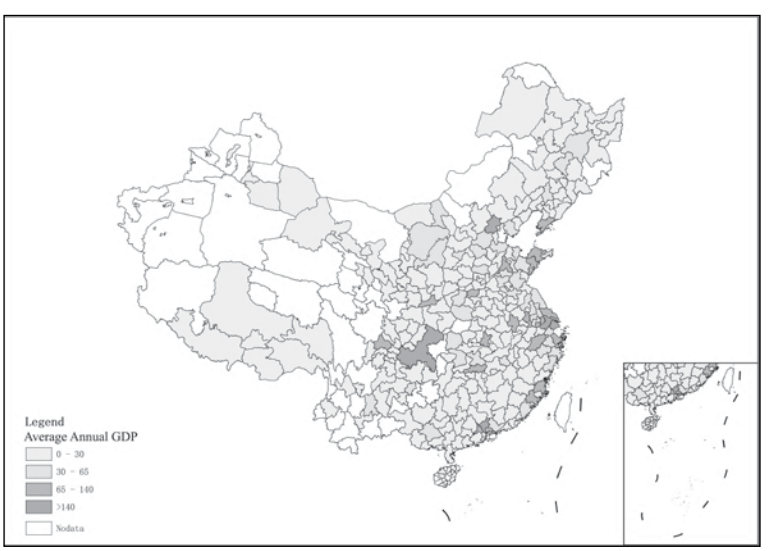
where i represents the city; t denotes the year; $Number\ of\ Cases_{i,t}$ denotes the number of environmental public interest litigation cases filed by the procuratorate in city i in year t; $Pollution_{i,t}$ is the environmental pollution index of city i in year t; $Pollution_{i,t}$ could also be replaced by $Air\ Pollution_{i,t}$, $Water\ Pollution_{i,t}$ or $Solid\ Pollution_{i,t}$ in different specifications. $City_{i,t}$ is the city fixed effect and $Year_{i,t}$ is the year fixed effect.

Figure 2. Average Annual Environmental Pollution Index by City, 2018–21



Source: China Statistical Yearbooks (https://www.stats.gov.cn/sj/ndsj/).

Figure 3. Average Annual GDP by City, 2018–21



Source: China Statistical Yearbooks (https://www.stats.gov.cn/sj/ndsj/).

The term α represents the intercept term while $\varepsilon_{i,t}$ represents the error term. The study particularly focuses on the coefficient of β. A positive β coefficient indicates that the case number of procuratorate-led EPIL increases with rising pollution levels, whereas a negative β coefficient suggests that procuratorate-led EPIL cases decrease despite heightened pollution levels.

The results of the model estimation are shown in Table 3. Results in column (1) clearly indicate that the level of urban pollution significantly and positively affects the number of local prosecutor-led EPIL cases, and suggests that as the level of urban pollution increases, the number of prosecutor-led EPIL cases also rises. The sub-analysis in columns (2)–(4) reveals that urban local air and water pollution levels also significantly and positively impact local prosecutor-led EPIL caseloads. Solid pollution, by contrast, has no significant effect on caseloads. These estimated results are consistent with the expectations in the preceding discussion: a locality's higher level of pollution correlates with a higher prosecutor-led EPIL caseload.

TABLE 3
IMPACT OF ENVIRONMENTAL POLLUTION ON THE CASELOAD OF ENVIRONMENTAL PUBLIC INTEREST LITIGATION

Dependent variable	**(1)** **No. of cases**	**(2)** **No. of cases**	**(3)** **No. of cases**	**(4)** **No. of cases**
Pollution	0.994*** (0.377)			
Air Pollution		0.355*** (0.094)		
Water Pollution			0.858*** (0.379)	
Solid Pollution				0.007 (0.009)
Obs	1,128	1,128	1,128	1,128
City fixed effect	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes
Adj R^2	0.083	0.020	0.036	0.048

Notes: This table reports the impact of environmental pollution on the number of environmental litigation cases in cities. Air pollution includes emissions of sulphur dioxide (in tonnes), nitrogen oxides (NO_x, in tonnes) and respirable particulate matter (in μg/m³). Water pollution refers to the city's industrial wastewater emissions (in million tonnes). Solid pollution refers to the city's emissions of industrial solid waste that is not treated through an environmentally sustainable method (in million tonnes). "Pollution" is a composite measure of these three types of pollution. Robust standard errors are reported in parentheses. ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively.

The impact of urban economic development on local pollution levels was estimated using the following formula:

$$Pollution_{i,t} = \alpha + \beta \times Ln(GDP)_{i,t} + City_i + Year_t + \varepsilon_{i,t} \quad (2)$$

where i represents the city and t, the year. $Pollution_{i,t}$ is the environmental pollution index of city i in year t. $Pollution_{i,t}$ could also be replaced by $Air\ Pollution_{i,t}$, $Water\ Pollution_{i,t}$ or $Solid\ Pollution_{i,t}$ in different specifications. $Ln(GDP)_{i,t}$ is the natural logarithm of the GDP of city i in year t. As in formula (1), $City_i$ is the city fixed effect and $Year_i$ is the year fixed effect. α represents the intercept term while $\varepsilon_{i,t}$ represents the error term.

Table 4 displays the estimation results of the model, indicating that the local economic development level significantly impacts environmental pollution levels, as reflected by the coefficients of β in all specifications of the pollution indicators. Specifically, higher local GDP correlates with an increased pollution level. From the

calculations for adjusted R^2, it was found that economic development has the most significant effect on water pollution, with approximately 30 per cent of changes in water pollution being attributed to changes in economic development.

TABLE 4
Impact of Urban Economic Development on Local Pollution Levels

Dependent variable	(1) Pollution	(2) Air Pollution	(3) Water Pollution	(4) Solid Pollution
Ln(GDP)	0.135***	0.337***	0.114***	1.363**
	(0.007)	(0.030)	(0.005)	(0.577)
Obs	1,128	1,128	1,128	1,128
City fixed effect	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes
Adj R^2	0.189	0.089	0.304	0.004

Notes: This table illustrates the relationship between urban GDP development and environmental pollution levels. Air pollution is quantified by emissions of sulphur dioxide (in tonnes), nitrogen oxides (NO_x, in tonnes) and respirable particulate matter (μg/m³). Water pollution encompasses the city's industrial wastewater emissions (in million tonnes). Solid pollution includes the city's emissions of industrial solid waste that is not treated in an environmentally sound manner (in million tonnes). Overall pollution is represented as a combination of these three types. Robust standard errors are reported in parentheses. Significance levels are denoted by ***, ** and * for 1%, 5%, and 10%, respectively.

A propensity score matching (PSM) model was utilised to evaluate the impact of economic development on local environmental public interest litigation cases when pollution levels are similar. Cities were categorised into "high-GDP" and "low-GDP" groups depending on whether their GDP was above or below the median. High-GDP cities were then matched with low-GDP cities based on their air, water and solid pollution levels. Following the matching, the difference in the number of environmental public interest litigation cases between "high-GDP" and "low-GDP" cities was estimated.

Table 5 presents the results of the estimates, independent of propensity score matching. Given that both categories have similar pollution levels, the findings suggest that more economically developed cities tend to have a higher number of local environmental public interest litigation cases. On average, high-GDP cities had 3.21 times more local environmental public interest litigation cases than low-GDP cities did. This suggests that, given similar pollution levels, economically developed cities tend to focus more on environmental management and therefore have a higher number of prosecutor-led EPIL cases.

TABLE 5
Impact of the Level of Economic Development on the No. of Local Environmental Public Interest Litigation Cases

Variable: No. of cases	High-GDP Cities	Low-GDP Cities	Difference
Unmatched	7.759	5.083	2.676***
			(0.513)
Matched	7.728	4.515	3.213***
			(0.931)

Notes: This table presents the difference in the number of environmental litigation cases between cities with high and low GDP after propensity score matching. ***, ** and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

DISCUSSION

Trend and Dynamics of Prosecutor-led Environmental Public Interest Litigation

Chinese prosecutors are inclined to pursue EPIL cases; however, the COVID-19 pandemic led to a significant decrease in these case numbers. The number of prosecutor-led EPIL cases from 2018 to 2021 were 1,259, 2,270, 3,436 and 1,407, respectively, reflecting growth rates of 80.3 per cent (in 2019), 51.3 per cent (in 2020) and a decline of 59 per cent (in 2021). It is reasonable to assume that the caseload number of prosecutor-led EPIL in China would have continued to grow if not for the stringent counter-COVID policies implemented by China's government in 2021.[42]

In environmental protection, EPIL cases often serve as a last resort for China's procuratorates. Pre-litigation procedures, such as those classified as civil and administrative, typically resolve most environmental protection issues. For instance, civil pre-litigation proceedings constitute about twice the volume of litigation, while administrative pre-litigation proceedings are approximately 170 times the volume.[43] This ratio largely applies to EPIL as well.

With procuratorial resources remaining generally constant, there are three motivations for China's prosecutors to act in EPIL cases. First, from a national strategy perspective, EPIL has become an essential component of China's "Fourteenth Five-Year Plan for National Economic and Social Development (2021–2025)", and the procuratorate, as a state organ, is responsible for supporting this goal. Second, in terms of institutional interest, prosecutor-led EPIL helps fill the power vacuum left by the National Supervision Reform, which withdrew its original authority of investigating corruption cases.[44] Third, empirical evidence has shown that prosecutor-led EPIL effectively improves environmental conditions. This approach has strong support from China's government and official recommendation from the Central Committee of the CPC. Scholars familiar with China's political system understand that such recognition from the central authority could serve as an authoritative basis for expanding procuratorial powers in the future.

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[42] Zi Zhengfa and Wu Wanqiang, "Amendment of China's Biotechnology Laws in Relation to the Prevention and Containment of the COVID-19 Pandemic", *Biotechnology Law Report* 39, no. 6 (2020): 458.

[43] The Supreme People's Procuratorate of the PRC, "What Are the Highlights of Prosecution Work in 2018? Six Sets of Figures to Take You Through", 18 January 2019, at <https://china.chinadaily.com.cn/a/201901/18/WS5c4198aaa31010568bdc4ce2.html> [31 January 2023]; The Supreme People's Procuratorate of the PRC, "National Procuratorate Key Data Report for 2019", 2 June 2020, at <https://www.spp.gov.cn/spp/xwfbh/wsfbt/202006/t20200602_463796.shtml#1> [31 January 2023]; The Supreme People's Procuratorate of the PRC, "National Procuratorate Key Data Report for 2020", 8 March 2021, at <https://www.spp.gov.cn/spp/xwfbh/wsfbt/202103/t20210308_511343.shtml#1> [31 January 2023].

[44] Wu and Lin, "Constrained Power Expansion", p. 285.

Effectiveness of Prosecutor-led Environmental Public Interest Litigation in Reducing China's Environmental Disparities

Building on existing literature that underscores the potential of prosecutor-led EPIL in enhancing China's environmental protection, this study examines whether prosecutor-led EPIL can also reduce environmental inequalities. The study reveals two major findings. First, there is a direct correlation between economic development and environmental pollution. As shown in Table 3, analysis of 1,128 observations indicates a strong influence of local economic levels on environmental pollution, significant at the one per cent level ($p<0.01$). Higher local GDP is associated with severely high pollution levels—this suggests that economically developed areas have a greater need for effective environmental governance.

Second, there is a positive correlation between pollution severity and the number of prosecutor-led EPIL cases. As is evident in Table 2, the number of EPIL cases positively correlates with overall pollution at the one per cent significance level ($p<0.01$); this suggests that areas with more severe pollution tend to have more EPIL cases filed by prosecutors. The data also reveal that air and water pollution significantly and positively correlates with the number of prosecutor-led EPIL cases, while solid waste pollution shows no significant correlation. Such a discrepancy may be due to the more direct and perceptible impact of air and water pollution on people's daily lives and health, leading to greater public awareness and concern.

Overall, the statistically significant positive relationship between pollution levels and prosecutor-led EPIL cases indicates that prosecutors have channelled more resources and attention (through litigation) to areas with higher levels of pollution. Prosecutors generally demonstrate their responsiveness to the pollution control needs of their respective regions. In doing so, they are likely contributing to reducing environmental disparities between regions. While the regression results do not provide quantitative evidence of the extent to which prosecutor-led EPIL contributes to reducing environmental inequalities, the significant correlations suggest that prosecutors are dedicating more efforts to areas with more severe pollution; this indicates the general effectiveness of the prosecutor-led EPIL mechanism. If this system operates effectively and plays its intended role, it should, theoretically, help mitigate environmental disparities.

Deficiency of Prosecutor-led Environmental Public Interest Litigation in Reducing China's Environmental Disparities

Despite the potential benefits of prosecutor-led EPIL in mitigating environmental disparities in China, prosecutors' commitment to environmental protection varies significantly across cities. Among cities with comparable environmental pollution indices (Table 4), those that are economically developed tend to have a higher incidence of prosecutor-led EPIL cases. This suggests that these cities may benefit from better environmental protection, irrespective of the application of propensity score matching.

In view of the overall progress in environmental protection, there is a notable difference between poorer and affluent cities in the levels of environmental protection offered by procuratorates. Such a situation reveals that there may be a risk of widening environmental disparities between these cities.

One reason for this phenomenon could be that financially better-off cities can provide prosecutors with more resources, such as highly competent staff, professional investigative tools and sufficient funding to hire external assistance to file EPIL;[45] in short, prosecutors in more affluent cities have better resources to pursue environmental protection-related litigation. In addition, the leadership in procuratorial offices in economically developed regions may have a stronger understanding of environmental law and may be more supportive of initiating EPIL in cases involving environmental hazards. However, this impact is expected to wane with the implementation of the "provincial unified management reform", as the provincial committee has uniformly allocated resources and leadership positions for procuratorates in local cities; thus, such a move would reduce the likelihood of resource and personnel imbalances.

Another explanation for the discrepancies in environmental protection is local economic protectionism. In economically underdeveloped cities, the local governments' focus on economic development may undermine procuratorial authorities' incentives to initiate EPIL against polluting enterprises that are vital to the local economy. This is particularly relevant as most of China's grassroots cities have yet to develop and effect a transition to low-polluting high-tech or service industries, but still rely on highly polluting manufacturing industries as the backbone of their economies. This also explains the "high economy, high pollution" situation, as observed in Table 2. In such scenarios, officials in poorer cities, driven by economic achievement goals, may exert external influence on prosecutorial EPIL,[46] thereby reducing the volume of prosecutor-led EPIL cases in impoverished cities and widening their environmental disparities with wealthier towns.

In terms of policy implications, this article highlights three key aspects that require attention. First, at a macro level, maintaining the autonomy and authority of local procuratorial organs vis-à-vis local governments is essential. This approach would enable prosecutors to initiate and litigate environmental protection cases more effectively,

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[45] Peter C.H. Chan, "Do the 'Haves' Come Out Ahead in Chinese Grassroots Courts? Rural Land Disputes between Married-Out Women and Village Collectives", *Hastings Law Journal* 71, no. 1 (2019): 1–78.

[46] As Gao Qi has observed, local governments often intervene in local environmental cases due to economic interests. Several empirical studies support this view. For example, a study by Pang et al. found that local governments in China tend to adopt a "pollute first, control later" approach in balancing economic growth and environmental protection. Environmental regulatory measures become effective only when regional per capita GDP exceeds RMB90,000. Research by Wang and Wang reveals that the enforcement of emission fees is often inadequate in the most polluted areas. Hui et al. also demonstrate that cities under significant fiscal pressure are more likely to contribute to air pollution due to reliance on existing economic development models. These studies highlight two key points: (i) Environmental protection measures in poorer cities often have limited impact; and (ii) Local governments tend to

free from the undue influence of local officials. Second, regarding specific implementation programmes, in addition to continuing the "provincial unified management reform" and linking the career promotion of officials to environmental improvement, there is a need for local chief officials to move away from relying on high-pollution manufacturing as a main driver of economic growth. Recent empirical studies have shown that judicial reform, particularly enhancing the judiciary's autonomy from local government influence, can also boost the local economy.[47] A fair justice system also promotes the corporate fixed assets investment rate, corporate financing, long-term investment, research and development (R&D) expenditures, and financial development.[48] By deepening judicial reform, prosecutor-led EPIL can more effectively reduce environmental inequalities in China. Third, at a micro level, it is vital to equip procuratorates in economically underdeveloped areas with the necessary resources and training to initiate and prosecute EPIL cases effectively. This approach would increase the volume of prosecutor-led EPIL cases in poorer cities, thereby narrowing the environmental protection gap between economically developed and underdeveloped regions.

CONCLUSION

Environmental disparities are critical issues faced by a country in its comprehensive development and long-term success, and they have become an increasingly important concern among environmentalists and jurists. Legal scholars have focused on whether and how the judicial system could contribute to environmental protection, but the issue of reducing disparities has been understudied. This article addresses this research gap by analysing prosecutor-led EPIL cases across all intermediate and grassroots procuracies, and also examining economic and pollution data from 282 cities between 2018 and 2021. It highlights the importance of reducing environmental disparities alongside enhancing overall environmental protection. By revealing a strong positive

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prioritise economic development over environmental protection when under fiscal pressure. Consequently, since environmental public interest litigation is a fundamental measure of environmental protection, it may face similar challenges in achieving its goal in impoverished areas that are under the pressure of pursuing economic growth. See Gao Qi, "Public Interest Litigation in China: Panacea or Placebo for Environmental Protection?", *China: An International Journal* 16, no. 4 (2018): 47–75; Wang Xianyan and Wang Lihong, "State-Enterprise Relation, Local Economic Priority, and Corporate Environmental Responsibility", *Applied Economics* 51, no. 10 (2019): 995–1009; Pang Rui et al., "Pollute First, Control Later? Exploring the Economic Threshold of Effective Environmental Regulation in China's Context", *Journal of Environmental Management* 248 (2019): 109275; Hui Changhong et al., "Fiscal Pressure and Air Pollution in Resource-Dependent Cities: Evidence from China", *Frontiers in Environmental Science* 10 (2022): 908490.

[47] Li Yishuang, "Court Structure, Judicial Independence, and the Attraction of Foreign Investment: Evidence from Judicial Recentralisation in China", 8 April 2022, at <https://ssrn.com/abstract=3994808> [28 December 2022].

[48] Zhao Renjie and Zhang Jiakai, "Local Judicial System Reform and Corporate Investment: Evidence from Unified Management of Local Courts Below the Province", *China Economic Quarterly International* 2, no. 4 (2022): 290–303.

correlation between environmental pollution levels and the volume of EPIL cases filed by prosecutors, this article validates the effectiveness of China's prosecutor-led EPIL in addressing environmental issues, thus providing evidence of its benefits in reducing environmental disparities. However, the different prosecution frequencies between cities with varying economic profiles may limit the potential impact of prosecutor-led EPIL.

The analysis demonstrates a positive correlation between pollution severity and prosecutor-led EPIL caseloads, indicating that prosecutors focus more EPIL efforts on heavily polluted areas. This implies that the prosecutor-led EPIL system is operating effectively and could contribute to reducing China's environmental disparities. In addition, high-GDP cities tend to have higher volume of prosecutor-led EPIL cases than low-GDP cities do, even with similar pollution levels. This suggests that while advancing environmental protection, China's procuracy has not succeeded in ensuring a balanced development between cities with different GDPs. This could be attributed to several factors: (i) cities with larger economic scale tend to have more prosecutors with stronger environmental awareness; (ii) affluent cities tend to have the capability to provide more resources, such as equipment support and professional assistance; and (iii) affluent regions often have greater judicial autonomy and less local economic protectionism, allowing prosecutor-led EPIL to be more effective. Nevertheless, in order to better address regional inequalities, environmental pollution levels should remain a primary consideration for procuratorial resource investment in environmental protection. In accordance with the economic theory of marginal utility, it can be argued that enhancing EPIL resource investment, personnel training and judicial autonomy in less economically developed cities could enable prosecutor-led EPIL to significantly reduce environmental disparities in China.

In addition to highlighting the potential of China's prosecutor-led EPIL in narrowing environmental disparities, this article also contributes to three literature streams. First, it adds to the ongoing discussion on China's environmental protection and disparities through a judicial approach, using an integrated environmental pollution index based on principal component analysis to estimate local pollution levels. Second, it enriches the debate on the effectiveness of prosecutor-led EPIL by detailing how it positively impacts the reduction of environmental inequalities. Third, it augments discussion on broader political and judicial topics in China, such as local economic protectionism, judicial autonomy and the evolving role of China's prosecutors.

Despite these contributions, this article has three significant limitations. First, although the fixed effects regression model shows significance at the one per cent level, it does not provide additional causal evidence. Future research may delve more deeply into the impact of prosecutorial public interest litigation on environmental inequality using a difference-in-differences approach. Second, the relationship between economic development and environmental pollution is complex. Even though the fixed effects model controls for city and year, more unobserved variables remain uncontrolled, thus potentially influencing the regression outcomes. Third, EPIL is a last resort for Chinese prosecutors in addressing environmental protection cases, as pre-litigation procedures,

particularly for administrative EPIL cases, accomplish a considerable percentage of the work. Therefore, future studies should incorporate pre-litigation proceedings as complementary data to offer a more comprehensive view of Chinese prosecutors' efforts to promote environmental equality.

APPENDIX I
Principal Component Analysis

Since, in multivariate statistics, an excessive selection of variables may lead to redundant or intersecting information due to the inevitable correlation between some variables, it is desirable to transform these indicators and represent them by a small number of new, unrelated indicators, i.e. potential conceptual indicators. The new variables enable researchers to obtain an overall indicator for ranking and classification purposes. Principal component analysis (PCA) uses dimensionality reduction to transform multiple indicators into one or a few composite indicators for the best synthesis and simplification of multivariate data while ensuring minimal loss of information.[49] Because pollution takes many forms and therefore can be expressed by a variety of indicators which need to be grouped together for clarity of analysis, PCA is considered the optimal method for quantitatively assessing the pollution level of cities.

The crux of PCA lies in its ability to achieve three fundamental objectives within the statistical analysis process: (i) elimination of correlation between original variables; (ii) determination of weights necessary for comprehensive evaluation; and (iii) reduction in the number of dimensions of comprehensive evaluation indicators.

Compared to single-indicator evaluation methods, comprehensive evaluation methods and fuzzy evaluation methods, PCA boasts several advantages. First, it employs multiple indicators for comprehensive evaluation rather than relying solely on a single indicator for one-sided evaluation, ensuring the utmost comprehensiveness in reputation evaluation. Second, PCA transforms correlated original variables into independent components, allowing for a comprehensive evaluation based on principal components. Additionally, the mathematical model of PCA indicates that the weights of each principal component in the comprehensive evaluation function are not artificially determined but rather determined according to the weight of the variance of each principal component in the total variance, thus eliminating the unreasonableness of artificially determined weights found in some evaluation methods and facilitating comprehensive evaluation. Finally, selecting k principal components through PCA enables retention of more than 80 per cent of the information contained in the original variables, resulting in simplified calculation and comprehensive evaluation. Based on this analysis, PCA was selected to evaluate the pollution levels of cities.

APPENDIX II
Propensity Score Matching

It is assumed that there are n cities and each city i has two possibilities, i.e. gross domestic product (GDP) above or below the median. These possibilities correspond to the difference in the number of environmental public interest litigation cases in the same city when GDP is above the median ($Y_i(1)$) and the number of environmental public interest litigation (EPIL) cases when GDP is below the median ($Y_i(0)$),

[49] Karl Pearson, "On Lines and Planes of Closest Fit to Systems of Points in Space", *Philosophical Magazine* 2, no 11 (1901): 559-572; Harold Hotelling, "Analysis of a Complex of Statistical Variables Into Principal Components," *Journal of Educational Psychology* 24, no. 6 (1933): 417–41 and 498–520.

respectively. Then the difference for the same city is denoted as δ_i, representing the difference between the number of EPIL cases in a city with good economic development and the number of EPIL cases in a city with poor economic development.

$$\delta_i = Y_i(1) - Y_i(0)$$

The focus is more on understanding the differences in the city as a whole than the differences in individuals, as the analysis generally pertains to groups. So

$$ATT = E(\delta|D = 1) = E[Y(1)|D = 1] - E[Y(0)|D = 1]$$

where the variable D indicates whether economic development is better than the median.

$E[Y(0)|D = 1]$ represents the observation that if a city with a higher degree of economic development than the median was to have a lower degree of economic development than the median, this is a counterfactual and unobservable value. However, this can calculated by fitting a dummy control group with propensity score matching.

The concept of the propensity score is introduced here, i.e. the probability that a city is more economically developed than the median, as follows:

$$P(X) = P(D = 1|X)$$

Here, X denotes a set of observable covariates.

In the case of using X to estimate the probability of urban development above the median, the ATT is estimated as follows.

$$ATT_{PSM} = E[Y(1)|D = 1,P(X)] - E[Y(0)|D = 0,P(X)]$$

The ATT_{PSM} here is the average treatment effect on the treated estimated using PSM.

Chinese Cultural Diplomacy in the 21st Century: An Analysis of China Cultural Centers

WANG Minglei

China Cultural Centers (CCCs) are cultural organisations established outside China by its Ministry of Culture and Tourism. Despite their importance in Chinese cultural diplomacy, CCCs remain an understudied topic. This article provides an analysis of CCCs based on interviews, policy documents and media reports. It argues that although their primary purpose and key relations demonstrate a close, strategic connection to the Chinese government, CCCs have thus far generated minimal controversy in host countries due to their set-up and activities, especially when compared to Confucius Institutes (CIs). However, this lack of controversy does not necessarily equate to the success of CCCs as a cultural diplomacy initiative.

INTRODUCTION

Since the turn of the 21st century, China has placed significant emphasis on cultural diplomacy. In 2004, then Chinese Minister for Culture Sun Jiazheng named cultural diplomacy as the third pillar of China's diplomacy, after political and economic diplomacy.[1] The same year, then Chinese President Hu Jintao urged that "China should strengthen economic and cultural diplomacy" and "conduct external publicity and cultural exchanges in an in-depth way".[2] In 2011, the Sixth Plenum of the 17th Central Committee of the Communist Party of China (CPC) dedicated the entire session to the topic of culture. The session resulted in the decision to "promote Chinese

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[1] Sun Jiazheng, "Buduan tigao jianshe shehui zhuyi xianjin wenhua de nengli" (Continously Improving the Ability to Construct Advanced Socialist Culture), *Qiushi* (*Seeking Truth*), no. 24 (2004): 5–8.

[2] "Di shici zhuwai shijie huiyi zai Jing juxing" (The 10th Conference of Chinese Diplomatic Envoys Is Held in Beijing), National People's Congress, 30 August 2004, at <http://www.npc.gov.cn/zgrdw/npc/wbgwyz/hyhd/2004-08/30/content_332176.htm> [12 February 2024].

culture in the world" and to "conduct cultural exchanges through multiple channels, forms, and layers".[3]

In practical terms, the Chinese government implemented the strategy of "going out" (*zou chuqu*, i.e. promoting Chinese investments abroad) in the cultural realm in 2002. This strategy aims to showcase the achievements of contemporary China's reform and construction, promote contemporary Chinese culture, integrate into international mainstream society and media, shape a positive image on the international stage and build China into an international cultural hub.[4] Clearly, culture has become an increasingly important part of China's national strategy. Against this backdrop, China Cultural Centers (CCCs)—cultural organisations established outside China by the Ministry of Culture and Tourism[5]—began to expand in the early 2000s. There are currently over 40 CCCs in various countries across Europe, Asia, Africa, Oceania and the Americas.

China Cultural Centers are at the forefront of China's cultural diplomacy. Chinese top leaders value CCCs highly and frequently attend their events during diplomatic visits overseas. For instance, Chinese President Hu Jintao attended the "foundation stone-laying ceremony" for the CCC in Berlin in 2005; in 2012, Chinese Premier Wen Jiabao inaugurated the CCC in Bangkok; and in 2014, Chinese President Xi Jinping unveiled the CCC in Sydney. Zhang Dianjun has highlighted that CCCs are becoming China's "most authoritative platform" to promote its culture abroad.[6]

Despite the obvious importance of CCCs in Chinese cultural diplomacy, several scholars have noted that the centres are understudied.[7] The lack of research on CCCs contrasts sharply with China's other flagship cultural diplomacy initiative, the Confucius Institutes (CIs), which have been comprehensively investigated from different

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[3] "Zhonggong zhongyang guanyu shenhua wenhua tizhi gaige tuidong shehui zhuyi wenhua dafazhan dafanrong ruogan zhongda wenti de jueding" (Decision of the Central Committee of the Communist Party of China on Major Issues Pertaining to Deepening Reform of the Cultural System and Promoting the Great Development and Flourishing of Socialist Culture), Xinhua News Agency, 25 October 2011, at <http://www.gov.cn/jrzg/2011-10/25/content_1978202.htm> [12 February 2024].

[4] Yang Liying, "Jinnian lai Zhongguo wenhua zou chuqu zhanlüe yanjiu zongshu" (A Review of the Chinese Culture Going Out Strategy in Recent Years), *Tansuo* (*Probe*), no. 2 (2009): 102–6.

[5] The Ministry of Culture and the China National Tourism Administration were merged in 2018 to form the Ministry of Culture and Tourism. This article uses the current name of the Ministry.

[6] Zhang Dianjun, "Lun heping fazhan zhengcheng zhong de Zhongguo wenhua waijiao" (A Discussion of China's Cultural Diplomacy in the Context of the Peaceful Development Journey), *Zhonggong Yunnan shengwei dangxiao xuebao* (*The Journal of Yunnan Provincial Committee School of the Communist Party of China*) 11, no. 3 (2010): 35.

[7] Chen Boqian, "Haiwai Zhongguo wenhua zhongxin fazhan licheng zongshu" (A Review of the Development of Overseas China Cultural Centers), *Duiwai chuanbo* (*International Communications*) 4, no. 10 (2019): 36–8; Guo Zhenzhi, Zhang Xiaoling and Wang Jue, "Yong wenhua de liliang yingxiang shijie: shilun Zhonguo wenhua zhongxin de haiwai chuanbo" (Influencing the World through Culture: A Discussion of China Cultural Centers' International Communication), *Xinwen yu chuanbo yanjiu* (*Journalism & Communication*) 23, no. 2 (2016): 41–50; Falk Hartig, "A Review of the Current State of Research on China's International Image Management", *Communication and the Public* 4, no. 1 (2019): 68–81.

perspectives.[8] Hartig notes that there are "very few accounts" focusing on CCCs in the English-language literature.[9] Similarly, in-depth studies on this topic are also largely absent in Chinese-language research. A search conducted in January 2023 with the keyword "中国文化中心 *Zhongguo wenhua zhongxin*" (China Cultural Center) under the "academic journal" category in China National Knowledge Infrastructure (CNKI)—a key national research and information publishing institution in China—yielded 62 results. Among them, only 13 were research articles written from diplomatic and cultural communication perspectives, with the remainder primarily being media reports. Extant scholarship on CCCs exhibits two primary weaknesses. First, it focuses primarily on describing the centres' development and history, with scant in-depth analysis conducted on their establishment and operation. Second, empirical data on CCCs are still largely inadequate. Specifically, existing scholarship has not covered insights from individuals who have directly interacted with these centres.

This article, therefore, aims to fill this gap by addressing the following research questions:

(i) What purpose do CCCs serve and how do they operate in the context of Chinese cultural diplomacy?[10]

(ii) What insights can the CCC project provide into the broader understanding of cultural diplomacy?

The article begins by introducing its methodology and explains the role of culture in international affairs, establishing the theoretical foundations for subsequent discussion. It then explains various perspectives of cultural diplomacy regarding its purpose, pertinent actors, and approaches through both international and Chinese lenses. Furthermore, the analysis focuses on the aim, key relations, set-up and activities of CCCs. This article finds that although CCCs' primary purpose and key relationship are closely associated with the Chinese government's provision of a strategic foundation, they have generated little controversy in host nations, particularly when compared to CIs, as a result of the set-up and activities of CCCs. However, the lack of controversy does not necessarily indicate the success of CCCs as a cultural diplomacy initiative, given the practical challenges they face and the broader objectives of cultural diplomacy in general. The research contributes to the existing academic literature on CCCs by offering a deeper understanding of CCCs, and expands current discussions on Chinese cultural diplomacy by highlighting an understudied yet highly relevant case.

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[8] See Falk Hartig, *Chinese Public Diplomacy: The Rise of the Confucius Institute* (London: Taylor & Francis, 2015); Jeffrey Gil, *Soft Power and the Worldwide Promotion of Chinese Language Learning: The Confucius Institute Project* (Bristol: Multilingual Matters, 2017); Liu Xin, *China's Cultural Diplomacy: A Great Leap Outward?* (Abingdon: Routledge, 2021).

[9] Hartig, "A Review of the Current State of Research on China's International Image Management", p. 75.

[10] This article draws comparisons with other cultural diplomacy initiatives, particularly Confucius Institutes (CIs), wherever useful and appropriate for analysing CCCs. The author does not engage in a comprehensive discussion of CIs as this article focuses mainly on CCCs.

RESEARCH METHODOLOGY, DATA SOURCES AND ANALYSIS

This article adopts a qualitative approach, using primarily semi-structured interviews for data collection. The author conducted 13 interviews in 2022 in Australia with former cultural diplomats, academics, arts administrators and artists. All respondents included in this research had worked with the CCC in Sydney and attended its cultural events, hence providing valuable insights into CCCs. Ten interviews, each lasting 60 to 80 minutes, were carried out online via MS Teams or Zoom, with three conducted via email. Interview topics were formulated based on the research questions and focused on the purpose and operational aspects of CCCs. This article also draws on policy documents and information published by the Chinese government, the headquarters of CCCs and Chinese media. These sources provide insights into the intentions and strategies of the Chinese government regarding the CCC project and, more broadly, Chinese cultural diplomacy. Identifying these aspects clarifies the purpose and approach of CCCs, aligning with the research questions of this study. In addition, this article also consults relevant academic literature on CCCs and cultural diplomacy both in Chinese and global contexts. It analyses the data thematically to reveal the aim, organisational structure, set-up and activities of CCCs in relation to China's cultural diplomacy.

This article is based on a limited number of interviews conducted in Australia, and should not be considered representative of all CCCs. It does not aim to provide definitive statements about all CCCs worldwide or a specific account of any particular CCC. Instead, it seeks to identify the main aspects and issues of CCCs in connection with Chinese cultural diplomacy. While these themes may manifest differently in practice, they remain relevant to CCCs as a whole.

ROLE OF CULTURE IN INTERNATIONAL AFFAIRS

Before delving into the concept of cultural diplomacy, it is beneficial to discuss briefly how culture is perceived in international affairs. This understanding provides a theoretical foundation upon which cultural diplomacy will be examined in the next section. In the history of international relations, the "cultural approach" highlights the role of culture as an instrument of state policy and a means to achieve/support political objectives.[11] As Conze explains, states instrumentalise culture by promoting their cultural representations to "enhance stability, security or even hegemony".[12] The functional role of culture in international relations was evident both in the proliferation

[11] Eckart Conze, "States, International Systems, and Intercultural Transfer: A Commentary", in *Culture and International History*, ed. Jessica C.E. Gienow-Hecht and Frank Schumacher (New York: Berghahn Books, 2003), pp. 198–205.
[12] Ibid., p. 199.

of world exhibitions in the 19th century,[13] and the cultural battle between the United States and Soviet Union during the Cold War.[14]

On the other hand, from the standpoint of cultural internationalism, Iriye views culture as composed of "structures of meaning", encompassing such aspects as "memory, ideology, emotions, life styles, scholarly and artistic works and other symbols".[15] Iriye applies the concept of culture in the context of international relations to describe the "sharing and transmitting of consciousness within and across national boundaries".[16] Building on this thought, Villanueva Rivas advocates a theoretical perspective of cosmopolitan constructivism, emphasising the role of cultural interaction in the intersubjective construction of ideas, norms and identities that facilitate cooperation, welfare and understanding.[17] This viewpoint recognises the diversity among cultures and the exchanges between societies and peoples, all of which, as Villanueva Rivas argues, are conducive to establish common understanding.

CULTURAL DIPLOMACY: PURPOSE, ACTOR AND APPROACH

The theoretical perspectives discussed above form the foundation for understanding cultural diplomacy. This section explains the definition of the term as used in this article. It also highlights how cultural diplomacy is perceived by the Chinese government and scholars.

One of the debates concerning cultural diplomacy revolves around its purpose. This article aligns with Milton Cummings, who defines cultural diplomacy as "the exchange of ideas, information, art, and other aspects of culture among nations and their peoples in order to foster mutual understanding";[18] this highlights what Simon Mark calls the "idealistic" aim of cultural diplomacy.[19] Such diplomacy, therefore, is not about achieving consensus or eliminating differences but about recognising

[13] Wolfram Kaiser, "The Great Derby Race: Strategies of Cultural Representation at Nineteenth-century World Exhibitions", in *Culture and International History*, ed. Jessica C.E. Gienow-Hecht and Frank Schumacher (New York: Berghahn Books, 2003), pp. 45–59.

[14] Laura A. Belmonte, "A Family Affair? Gender, the US Information Agency, and Cold War Ideology, 1945–1960", in *Culture and International History*, ed. Jessica C.E. Gienow-Hecht and Frank Schumacher (New York: Berghahn Books, 2003), pp. 79–93.

[15] Akira Iriye, *Cultural Internationalism and World Order* (Baltimore, MD: Johns Hopkins University Press, 1997), p. 3.

[16] Akira Iriye, "Culture and International History", in *Explaining the History of American Foreign Relations*, ed. Michael J. Hogan and Thomas G. Paterson (New York: Cambridge University Press, 2004), p. 242.

[17] César Villanueva Rivas, "Cosmopolitan Constructivism: Mapping a Road to the Future of Cultural and Public Diplomacy", *Public Diplomacy Magazine*, no. 3 (2010): 45–56.

[18] Milton Cummings, *Cultural Diplomacy and the United States Government: A Survey* (Washington, DC: Americans for the Arts, 2003), p. 1.

[19] Simon Mark, *A Greater Role for Cultural Diplomacy* (The Hague: Netherlands Institute of International Relations "Clingendael", 2009), p. 9.

diversity.[20] It has a long-term focus and is "less immediately interest-driven".[21] Scholars advocate the operation of cultural diplomacy through a dialogic and collaborative approach, rather than in a one-sided/nation-centric manner.[22] Cultural diplomacy driven by mutuality and openness could yield long-term national benefits such as peaceful international engagement, beyond narrowly defined political and economic interests.[23] These characteristics reflect the shift in contemporary diplomacy, which, as Goff observes, is evolving with a focus more on building bridges and forging understanding.[24] In contrast to Cummings' definition, Mark points out the "functional" goal of cultural diplomacy,[25] which denotes "the deployment of aspects of a state's culture in support of its foreign policy goals or diplomacy".[26] As a result, cultural diplomacy tends to be a one-way projection of a national image through cultural activities for achieving national interests.[27] Nonetheless, Albro critiques such assumption, arguing that the communication of culture is not easily presentable nor a one-track process. He contends that such an approach would undermine the effectiveness of cultural diplomacy.[28]

Indeed, the Chinese government holds a functional view of the purpose of cultural diplomacy. Former Chinese Vice Minister for Culture Meng Xiaosi notes that cultural diplomacy is composed of "international public relation activities through the means of cultural expressions, targeting specific audiences at particular times for achieving certain goals related to foreign relations and diplomatic arrangements".[29] This view is echoed by Chinese scholar Li Zhi, who regards cultural diplomacy as "a sovereign state's use of cultural approaches for achieving certain political goals or

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[20] Gary Rawnsley, "Cultural Diplomacy Today: A 'Culture of Dialogue' or a 'Dialogue of Cultures'?", in *Transnational Sites of China's Cultural Diplomacy*, ed. Jarmila Ptáčková, Ondřej Klimeš and Gary Rawnsley (Singapore: Springer, 2021), pp. 13–33.

[21] Thomas Bagger, "Cultural Diplomacy in the New Diplomatic Environment", in *Bridging the Trust Divide: Cultural Diplomacy and Fostering Understanding Between China and the West*, ed. Helmut K. Anheier and Bernhard Lorentz (Berlin: Stiftung Mercator, 2012), p. 45.

[22] Ien Ang, Yudhishthir R. Isar and Phillip Mar, "Cultural Diplomacy: Beyond the National Interest?", *International Journal of Cultural Policy* 21, no. 4 (2015): 365–81.

[23] Bettina Rösler, "The Case of Asialink's Arts Residency Program: Towards a Critical Cosmopolitan Approach to Cultural Diplomacy", *International Journal of Cultural Policy* 21, no. 4 (2015): 463–77.

[24] Patricia Goff, "Cultural Diplomacy", in *Routledge Handbook of Public Diplomacy*, ed. Nancy Snow and Nicholas Cull (New York: Routledge, 2020), pp. 30–7.

[25] Mark, *A Greater Role for Cultural Diplomacy*, p. 9.

[26] Simon Mark, "Rethinking Cultural Diplomacy: The Cultural Diplomacy of New Zealand, the Canadian Federation and Quebec", *Political Science* 62, no. 1 (2010): 66.

[27] Kong Lingmin, *Exploring China's Soft Power: Manifestations of the Chinese Dream in Contemporary Practices of Cultural Diplomacy*, PhD dissertation, The University of York, 2019.

[28] Robert Albro, "The Disjunction of Image and Word in US and Chinese Soft Power Projection", *International Journal of Cultural Policy* 21, no. 4 (2015): 382–99.

[29] Meng Xiaosi, "Zhongguo: wenhua waijiao xian meili" (China: The Charm of Cultural Diplomacy), *People's Daily,* 11 November 2005, p. 7.

external diplomatic strategy".[30] Specifically, Fan argues that cultural diplomacy shoulders tasks of establishing a sound national image and increasing a country's appeal and influence on the world stage.[31] Zhang further perceives cultural diplomacy as a means to improve China's discursive power internationally.[32]

Another area of debate concerns the actor. While acknowledging the role of government in cultural diplomacy, Cummings' definition includes actors other than states. Proponents of this view hold that "unlike in other areas of diplomacy, the state cannot do much without the support of non-governmental actors such as artists, curators, teachers, lecturers and students".[33] Furthermore, governments may proactively engage with non-state actors for achieving effectiveness and credibility, which are difficult to attain by the foreign government alone,[34] as the general public tends to perceive government-driven activities as propaganda and therefore as less legitimate.

Conversely, other scholars emphasise the government's role as a defining feature of cultural diplomacy.[35] One form this can take is by establishing overseas cultural institutes. The United Kingdom's British Council, Germany's Goethe-Institut and France's Alliance Française are examples of such establishments. Similarly, China has developed CCCs as its cultural diplomacy platform abroad.

Such a governmental role therefore also prevails in China. Meng Xiaosi considers government or governmental support as one of the criteria that distinguish cultural diplomacy from other cultural activities.[36] From an academic perspective, Li's definition of cultural diplomacy also underlines the position of the state as the main actor in conducting cultural diplomacy. Zhao observes that China's cultural diplomacy initiatives are predominantly planned, promoted and hosted by its government, with minor roles assigned to civil society, enterprises and social organisations.[37]

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[30] Li Zhi, *Wenhua waijiao: yizhong chuanboxue de jiedu* (*Cultural Diplomacy: An Interpretive Mode of Communication*) (Beijing: Peking University Press, 2005), p. 24.

[31] Fan Yongpeng, "Lun wenhua waijiao" (On Cultural Diplomacy), *Guoji anquan yanjiu* (*Journal of International Security Studies*), no. 3 (2013): 21–38.

[32] Zhang Dianjun, "Lun heping fazhan zhengcheng zhong de Zhongguo wenhua waijiao" (A Discussion of China's Cultural Diplomacy in the Context of the Peaceful Development Journey).

[33] Jessica C.E. Gienow-Hecht and Mark C. Donfried, "What Are We Searching For? Culture, Diplomacy, Agents, and the State", in *Searching for a Cultural Diplomacy*, ed. Jessica C.E. Gienow-Hecht and Mark C. Donfried (New York: Berghahn Books, 2010), p. 10.

[34] Hartig, *Chinese Public Diplomacy*.

[35] Richard R. Arndt, *The First Resort of Kings: American Cultural Diplomacy in the Twentieth Century* (Dulles, VA: Potomac Books, 2005); John M. Mitchell, *International Cultural Relations* (London: Allen and Unwin, 1986).

[36] Meng, "Zhongguo: wenhua waijiao xian meili" (China: The Charm of Cultural Diplomacy).

[37] Zhao Kejin, "Zhongguo wenhua waijiao de wenti yu silu" (The Problems of and Thoughts on China's Cultural Diplomacy), *Gonggong waijiao jikan* (*Public Diplomacy Quarterly*), no. 5 (2014): 19–25.

DEVELOPMENT OF CHINA CULTURAL CENTERS

The CCC project was initiated in 1988 when China established its first two centres in Mauritius and Benin. Despite an early start, these centres stopped operating due to "economic reasons" for several years and the establishment of other CCCs did not resume until the early 2000s,[38] as China achieved rapid economic growth, enhanced its comprehensive national strength and became ambitious in promoting Chinese culture globally.[39] It is in this context that the Chinese government emphasised the exigency to accelerate the establishment of CCCs in 2011.[40]

TABLE 1
Geographical Locations of China Cultural Centers in the World

Europe	Asia	Africa	Oceania	Americas
Athens	Amman	Benin	Auckland	Mexico
Belgrade	Bangkok	Cairo	Fiji	
Berlin	Hanoi	Mauritius	Sydney	
Bern	Kuala Lumpur	Nigeria	Wellington	
Brussels	Kuwait	Rabat		
Bucharest	Laos	Tanzania		
Budapest	Nepal			
Copenhagen	Pakistan			
Den Haag	Phnom Penh			
Luxembourg	Seoul			
Madrid	Singapore			
Malta	Sri Lanka			
Minsk	Tel Aviv			
Moscow	Tokyo			
Paris	Ulaanbaatar			
Riga	Yangon			
Sofia				
Stockholm				

Note: The location of each China Cultural Center follows the official naming of the centre in the website mentioned below, which identifies the centres as: China Cultural Center in [location]. The author presents the table this way to facilitate more accurate searches for information about these centres, as there are cultural organisations with similar naming conventions that are not established by the Chinese government.
Source: Compiled based on information published by the headquarters of China's overseas cultural and tourism organisations, at <https://cice.org.cn/portal/site/zongzhan/bsc/bsc.jsp> [12 February 2024]. This information, however, does not reflect a newly established CCC in the United Arab Emirates (UAE).

[38] Chen, "Haiwai Zhongguo wenhua zhongxin fazhan licheng zongshu" (A Review of the Development of Overseas China Cultural Centers), p. 37.
[39] Jiagu Richter, "Chinese Cultural Diplomacy and BRI: View from the Establishment of China Cultural Centers", in *The Connectivity Cooperation between China and Europe: A Multi-Dimensional Analysis*, ed. Liu Zuokui and Branislav Đorđević (London: Routledge, 2022), pp. 130–46.
[40] "Zhonggong zhongyang guanyu shenhua wenhua tizhi gaige tuidong shehui zhuyi wenhua dafazhan dafanrong ruogan zhongda wenti de jueding" (Decision of the Central Committee of the Communist Party of China on Major Issues Pertaining to Deepening the Reform of the Cultural System and Promoting the Great Development and Flourishing of Socialist Culture).

The number of CCCs has registered a marked growth since 2012 when China vowed to establish 50 CCCs by 2020.[41] Despite this ambitious goal, it has not been realised; 45 CCCs were established by the end of 2020 (see Table 1). While no official explanation was given regarding this unfulfilled mission, Richter speculates that disruptions caused by the COVID-19 pandemic could be a contributing factor.[42] Nonetheless, the task of expanding CCCs globally remains a priority of the Chinese government, as the Ministry of Culture and Tourism in 2021 announced the intention to increase their number to 55 by the end of 2025.[43]

THE PURPOSE OF CHINA CULTURAL CENTERS

According to their official website, CCCs aim to strengthen cultural exchange and cooperation between China and the host nation, while enhancing mutual understanding and friendship between peoples from both countries.[44] A former Chinese cultural diplomat to Australia noted that the purpose of establishing the CCC in Sydney was "to promote cultural exchange and cooperation between China and Australia, and to help the Australian public understand China in a positive way and know a true China".[45] The same respondent further elaborated:

> In recent years, some right-wing Australians and media often make noises and drum up the so-called influence and infiltration implemented by China in Australia, leading to a negative perception of China among the local public. In this situation, China should proactively present itself globally, take the initiative to enhance positive promotions, and introduce a real China to the Australian public. Therefore, this is the purpose for establishing the China Cultural Center in Australia. The aim of the China Cultural Center is to introduce Chinese culture, history, national characteristics, and the development status of contemporary China to the Australian people, and to facilitate a basic and authentic understanding of China among the general public in Australia.[46]

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[41] "Haiwai Zhongguo wenhua zhongxin jianshe tuidong Zhonghua wenhua zouxiang shijie" (The Establishment of Overseas China Cultural Centers Promotes Chinese Culture in the World), *People's Daily Online*, 30 May 2012, at <https://culture.ifeng.com/gundong/detail_2012_05/30/14923881_0.shtml> [12 Feburary 2024].

[42] Richter, "Chinese Cultural Diplomacy and BRI".

[43] Ministry of Culture and Tourism of the People's Republic of China (PRC), "Wenhua he lüyou bu fabu shisiwu wenhua he lüyou fanzhan guihua" (Ministry of Culture and Tourism Releases the Cultural and Tourism Development Plan for the 14th Five-year Period), 4 June 2021, at <http://zwgk.mct.gov.cn/zfxxgkml/zcfg/zcjd/202106/t20210604_925006.html> [12 February 2024].

[44] The website is currently unavailable, but a screenshot of the original website can be viewed at <https://baike.baidu.com/reference/49983459/02f9GzDf7XdjNPgtucGMRF5O4DJ_gRB0FonLKB7lURxQASkrQTcKqq3A20U-wtpyvyj1Hk3dYbzH4-IIjvFWAp5ZC-jdJkuXW5mU2M6bda6bFcnfOanrNfe013xk9nAFgyLKuAE8FQk_CAkoFjqwdemI7UV2cT5XMA> [12 February 2024].

[45] Interviewee no. 13, interview conducted (via email), 15 June 2022.

[46] Ibid.

This view reflects a strong strategic motivation related to image-shaping through China's cultural diplomacy. This strategic narrative is further manifested in Chinese domestic discussions, not least among government officials who are in charge of CCCs. For example, Zheng Hao, deputy director of the Bureau of International Exchange and Cooperation (BIEC), the agency which administers the CCCs, in the Ministry of Culture and Tourism , says that the Chinese government regards CCCs as a platform to showcase China's image in the world as well as a critical part of strengthening China's international communication capacity and promoting Chinese culture globally.[47] Former Chinese Vice Minister for Culture Ding Wei asserts that to "tell the Chinese story well, spread the Chinese voice well, and explain Chinese characteristics and values well" form the CCCs' essential mission.[48]

Similarly, interviewees in Australia perceived CCCs as more strategically oriented. One respondent held that the objective of the CCC in Sydney was "to illustrate and highlight the positive side of China".[49] An academic considered CCCs as "an agency of the Chinese government" and part of their "soft power strategy".[50] A Chinese-Australian artist bluntly characterised CCCs as "China's external propaganda agency".[51]

The strategic goal of CCCs is also noticeable in some of their activities. The CCCs launched a global campaign for the Beijing Winter Olympic and Paralympic Games in 2021/2022 that aimed to effectively tell the story of China, foster a favourable international environment for these events, and increase the country's global influence.[52] Furthermore, CCCs held cultural activities in 2021 to celebrate the centennial of the CPC, presenting narratives of how China stood up, grew rich and became strong under its leadership while explaining the CPC's history and development.[53]

Taken together, the operation of CCCs is closely connected with China's strategic pursuits, reflecting a functional understanding of cultural diplomacy that, as discussed before, prevails in China.

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[47] Ministry of Culture and Tourism of the PRC, "Wenhuabu 2016 nian disi jidu lixing xinwen fabuhui" (The Regular Press Conference of the Ministry of Culture in the Fourth Quarter of 2016), 15 December 2016, at <https://www.mct.gov.cn/vipchat/home/site/2/252/article.html> [12 February 2024].

[48] Wang Jue, "Wenhuabu fubuzhang Ding Wei: rang haiwai Zhongguo wenhua zhongxin jianghao Zhongguo gushi" (Vice Minister of the Ministry of Culture Ding Wei: Let Overseas China Cultural Centers Tell China's Story Well), *People's Daily Online*, 24 July 2014, at <http://culture.people.com.cn/n/2014/0724/c87423-25333832.html> [12 February 2024].

[49] Interviewee no. 11, interview conducted on 11 May 2022.

[50] Interviewee no. 5, interview conducted on 13 April 2022.

[51] Interviewee no. 4, interview conducted on 9 April 2022.

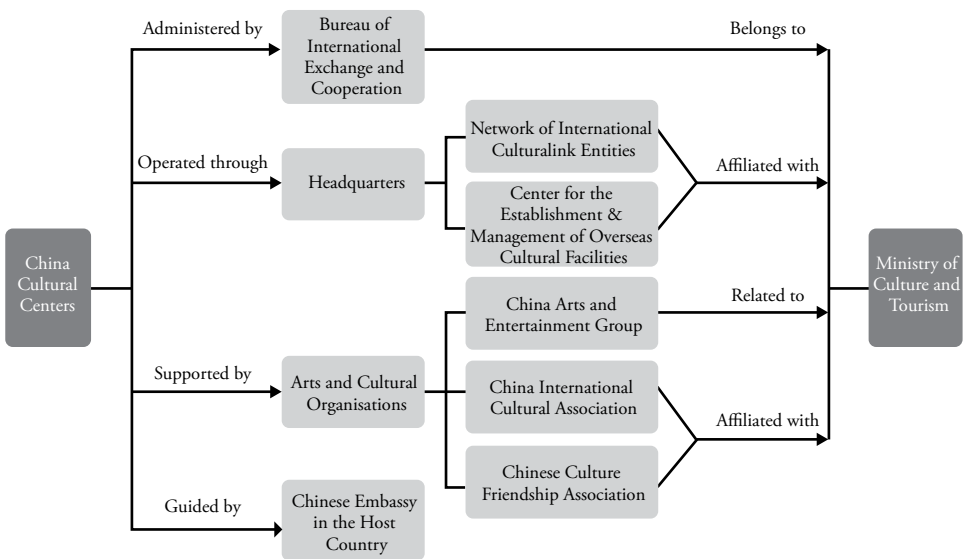
[52] Ministry of Culture and Tourism of the PRC, "Beijing 2022 dongao wenhua quanqiuxing zhuti huodong zhengshi qidong" (Beijing 2022 Winter Olympics Global Culture Tour Starts Officially), 29 January 2021, at <https://www.mct.gov.cn/whzx/whyw/202101/t20210129_921132.htm> [13 February 2024].

[53] "Haiwai qingzhu jiandang 100 zhounian wenhua huodong jingcai fencheng" (Splendid Cultural Events Held Overseas in Celebration of the Centennial of the Communist Party of China), *China Culture Daily*, 7 July 2021, at <https://npaper.ccmapp.cn/zh-CN/?date=2021-07-07&page=4&detailId> [23 April 2022].

KEY RELATIONSHIPS OF CHINA CULTURAL CENTERS

As China's state-driven cultural organisations abroad, CCCs are linked, structurally and administratively, to the Ministry of Culture and Tourism (MCT) and its agencies. Furthermore, CCC operation involves MCT-related/affiliated organisations that typically interact with the centres from a programming perspective. The operation of CCCs also intersects with Chinese embassies in host nations.

Figure 1. Key Relationships of China Cultural Centers



Source: Drawn by the author.

Without delving deeply into China's Party-state structure, it is important to note that since the CPC dominates the Chinese political system, it maintains control over the state apparatus by having a strong presence in government bodies at every level. While the CPC sets policies, the government executes them. This article acknowledges the difference between the two but will not specifically distinguish them, as its purpose is to map the direct connections of CCCs (see Figure 1), rather than analysing China's political system.

The Ministry of Culture and Tourism and its Agencies

CCCs are established and operated under the MCT, which is part of the State Council, the chief administrative authority of China. The Ministry appoints directors for the CCCs, entrusting them with the overall responsibility for their operations abroad.[54]

[54] Ruan Yaohua, *Haiwai Zhongguo wenhua zhongxin yunxing moshi, kunjing yu fazhan duice yanjiu* (*Research on the Operation Model, Predicament and Development Strategies of Overseas China Cultural Centers*) (Beijing: University of International Business and Economics, 2015), a master's degree thesis.

In addition, it also dispatches its personnel to serve as CCC staff members. Particularly through its Bureau of International Exchange and Cooperation (BIEC), the Ministry oversees China's cultural and tourism institutions overseas. The Bureau's primary role is to formulate policies and plans for international cultural exchange and promotions, including supervising the CCCs.

Two other organisations affiliated with the Ministry manage CCCs on a practical level. The Network of International Culturalink Entities (NICE, *Zhongwai wenhua jiaoliu zhongxin*) is responsible for, among other duties, supporting CCCs' operation and coordinating their publicity.[55] It is also tasked with designing and producing products for external cultural promotion and organising cultural exchange programmes.[56]

The Center for the Establishment and Management of Overseas Cultural Facilities is mainly in charge of constructing CCCs and cultural offices of Chinese embassies abroad.[57] For example, it was involved in building venues for CCCs in Copenhagen and Moscow. Authorised by the Ministry in 2019, NICE and the Center for the Establishment and Management of Overseas Cultural Facilities began collaborating as the headquarters of Chinese cultural and tourism organisations overseas, including CCCs.

Other MCT-related/affiliated Cultural Organisations

Several supportive organisations are also listed on the official website of CCCs. One of them is the China Arts and Entertainment Group (CAEG), established in 2004 as China's largest state-owned creative enterprise. Some of its cultural programmes have been hosted at CCCs. For example, the Silk Road Dance Drama was presented at CCCs in Wellington, Bangkok and Paris, while the "Twelve Chinese Zodiacs [*sic*]" was presented at the CCC in Singapore.

The China International Culture Association (CICA), established in 1986, is registered as a non-profit social organisation. In 2023, CICA was the organiser of the Ministry's "Happy Chinese New Year" programmes, which were widely featured through CCCs. Recent leaders of CICA were senior officials from the Ministry, including Luo Shugang and Zhang Xu, who were, respectively, former minister and vice minister. Therefore, while CICA claims to be a non-governmental social organisation, it conducts cultural exchange under the direct guidance and support of the Ministry of Culture and Tourism.

Another group relevant to CCCs is the Chinese Culture Friendship Association (CCFA), formed in 1987. CCCs in Yangon, Seoul, Tel Aviv, Malta and Madrid presented an online exhibition organised by the CCFA in 2022 to celebrate the arrival

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[55] Ministry of Culture and Tourism of the PRC, at <https://www.mct.gov.cn/gywhb/jgsz/zsdw_jgsz/201903/t20190315_837776.htm> [13 February 2024].

[56] Ibid.

[57] Ministry of Culture and Tourism of the PRC, "Wenhua he lüyoubu haiwai wenhua sheshi jianshe guanli zhongxin" (Center for the Establishment and Management of Overseas Cultural Facilities), at <https://www.mct.gov.cn/gywhb/jgsz/zsdw_jgsz/201903/t20190315_837771.htm> [13 February 2024].

of the Year of the Tiger. Similar to CICA, the CCFA's presidency has also been held by high-ranking officials from the Ministry of Culture and Tourism, including the aforementioned Zhang Xu and former Chinese Vice Minister for Culture Zhao Shaohua. The organisation is listed on the website as a social group under its administration.

Some scholars regard organisations such as CICA and the CCFA as "private enterprises", noting that CCCs' collaboration with such groups helps them gain trust and credibility for China's cultural diplomacy abroad.[58] While acknowledging that non-state actors may enhance credibility in such practice, the author holds that CICA and the CCFA are not independent of the Chinese government, as both organisations are guided by the Ministry of Culture and Tourism and led by its senior members. As Hartig explains, although various Chinese actors describe themselves as non-state entities, "they are not totally independent from the state and are normally somehow supervised by the state" because of "the nature of the political system" in China.[59] Therefore, d'Hooghe argues that the role of Chinese non-state actors in China's diplomatic activities is limited.[60] However, the attempt to increase such actors in Chinese cultural diplomacy demonstrates China's awareness of how cultural diplomacy is understood and practised in international society. This also explains China's aim to reduce the perception by the foreign public of their cultural programmes as being less legitimate due to obvious government affiliation. Nonetheless, scholars argue that this does not change the nature of China's public and cultural diplomacy, which remains largely planned and conducted by the state government.[61]

Chinese Embassies

The operation of CCCs is also overseen by Chinese embassies, particularly their cultural offices, in host countries.[62] Such a hierarchical relationship is evident in an organisational chart posted on the website of the CCC in Mexico.[63] Further evidence of such relationships or connections between CCCs and Chinese embassies can be found in the CCCs in Mauritius and Benin, which are listed as part of the Chinese embassies

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[58] Zhang Xiaoling and Guo Zhenzhi, "The Effectiveness of Chinese Cultural Centres in China's Public Diplomacy", in *China's Media Go Global*, ed. Daya Kishan Thussu, Hugo de Burgh and Shi Anbin (London: Routledge, 2017), p. 171.

[59] Falk Hartig, "New Public Diplomacy Meets Old Public Diplomacy—The Case of China and its Confucius Institutes", *New Global Studies* 8, no. 3 (2014): 341.

[60] Ingrid d'Hooghe, "The Expansion of China's Public Diplomacy System", in *Soft Power in China: Public Diplomacy through Communication*, ed. Wang Jian (New York: Palgrave Macmillan, 2011), pp. 19–36.

[61] Ibid.; Wang Jian, "Introduction: China's Search of Soft Power", in *Soft Power in China: Public Diplomacy through Communication*, ed. Wang Jian (New York: Palgrave Macmillan, 2011), pp. 1–18.

[62] Wang Song, *Wenhua waijiao shijiao xia de Ouzhou Zhongguo wenhua zhongxin yanjiu* (*Research on China Cultural Centers in Europe through the Lens of Cultural Diplomacy*) (Shanghai: Shanghai Academy of Social Sciences, 2019), a master's degree thesis.

[63] China Cultural Center in Mexico, "Organizational Chart of the China Cultural Center in Mexico", at <http://www.ccchinamexico.org/es/AboutUs/Others> [12 February 2024].

in these respective countries, as shown on the websites of the embassies. Furthermore, on some occasions, the cultural counsellor of the Chinese embassy concurrently holds the directorship of the CCC in the host nation. For example, in 2022, cultural counsellors of Chinese embassies in Sweden, Egypt, South Korea and Mongolia also held the directorship of CCCs in those countries.

CHINA CULTURAL CENTERS' STRONG AFFILIATION WITH THE GOVERNMENT AND THE ABSENCE OF CONTROVERSIES ABROAD

CCCs' strategic underpinning, together with a state-led development, shows their strong affiliation with the Chinese government. While government links to similar cultural organisations, including the Cervantes Institute, Alliance Française and the Japan Foundation, are not uncommon,[64] cultural diplomacy experts have warned that state-driven cultural diplomacy is likely to be perceived as propaganda.[65] This issue is particularly relevant to China because while the state is rarely trusted as the message communicator by foreign audiences, the Chinese government is trusted even less, essentially due to the non-transparent political system and a state-centred hierarchical model of diplomacy.[66] Following this argument, Liu further points out that when China's state-sponsored cultural diplomacy is conducted in a context with differing political and ideological perspectives, there tends to be an association between the Chinese government and the Communist Party, which "is synonymous with authoritarian rule and a threat to democracy".[67] Liu argues that cultural activities with links to China's state government are, therefore, likely to be regarded in such a context as "dangerous communist propaganda".[68]

The consequences of such government affiliation in Chinese cultural diplomacy are evident in the case of Confucius Institutes (CIs). Due in part to their links to the Chinese government, CIs have caused significant controversy, resulting in criticism from overseas and closures in host nations. This controversy stems primarily from ideological and political concerns over "the presence of a Chinese government-backed institution on Western university campuses".[69] For example, critics argue that CIs serve as "a way for Beijing to spread propaganda under the guise of teaching,

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[64] Gil, *Soft Power and the Worldwide Promotion of Chinese Language Learning*.

[65] Jessica C.E. Gienow-Hecht and Mark C. Donfried, "The Model of Cultural Diplomacy: Power, Distance, and the Promise of Civil Society", in *Searching for a Cultural Diplomacy*, ed. Jessica C.E. Gienow-Hecht and Mark C. Donfried (New York: Berghahn Books, 2010), pp. 13–29.

[66] Ingrid d'Hooghe, "The Limits of China's Soft Power in Europe: Beijing's Public Diplomacy Puzzle", in *Public Diplomacy and Soft Power in East Asia*, ed. Lee Sook Jong and Jan Melissen (New York: Palgrave Macmillan, 2011), pp. 163–90.

[67] Liu, *China's Cultural Diplomacy*, p. 145.

[68] Ibid.

[69] Don Starr, "Chinese Language Education in Europe: The Confucius Institutes", *European Journal of Education* 44, no. 1 (2009): 78–9.

interfere with free speech on campuses and even to spy on students".[70] These concerns, compounded by geopolitical factors, have further led to the closure of a number of institutes in North America, Europe and Australia, and former British Prime Minister Rishi Sunak's call to ban all CIs in the United Kingdom in 2022.[71] The extent of such controversy is broad, encompassing governments, universities and academics, media and the general public of foreign countries, as comprehensively documented by Gil.[72]

By contrast, despite their close links to the Chinese government, CCCs have thus far avoided significant controversy. The author's online searches found that similar criticisms about CCCs have largely been absent in academic literature and media reports, and no public calls for their closure or opposition to their establishment have been reported. Scholars[73] and interviews that the author conducted in Australia largely corroborate such an observation.[74] A former Australian diplomat suggests that CCCs are less controversial because of "how they have been set up and what they have done".[75]

THE SET-UP OF CHINA CULTURAL CENTERS

The establishment of CCCs is based on mutual consent between China and the host country at the national government level.[76] As such, typically, only one centre is set up per host nation, with the exception of New Zealand, which has established two CCCs, in Wellington and Auckland. This largely explains why there are far fewer CCCs than CIs, which are established through agreements with individual universities rather than national governments.[77] Despite the smaller number, scholars argue that

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[70] Pratik Jakhar, "Confucius Institutes: The Growth of China's Controversial Cultural Branch", BBC News, 7 September 2019, at <https://www.bbc.com/news/world-asia-china-49511231> [13 February 2024].

[71] Louisa Clarence-Smith, "Ban on Chinese Institutes at UK Universities Drawn up after Rishi Sunak's Pledge to Scrap Them", *The Telegraph*, 25 October 2022, at <https://www.telegraph.co.uk/news/2022/10/25/ban-chinese-institutes-uk-universities-drawn-rishi-sunaks-pledge/> [24 December 2022].

[72] Gil, *Soft Power and the Worldwide Promotion of Chinese Language Learning*.

[73] Zhang and Guo, "The Effectiveness of Chinese Cultural Centres in China's Public Diplomacy"; Liu, *China's Cultural Diplomacy*.

[74] Interviewee no. 1, interview conducted (via email), 26 February 2022; Interviewee no. 4, interview conducted on 9 April 2022; Interviewee no. 5, interview conducted on 13 April 2022; Interviewee no. 6, interview conducted (via email), 13 April 2022; Interviewee no. 7, interview conducted on 19 April 2022; Interviewee no. 9, interview conducted on 26 April 2022; Interviewee no. 10, interview conducted on 29 April 2022; Interviewee no. 12, interview conducted on 12 May 2022.

[75] Interviewee no. 9, interview conducted on 26 April 2022.

[76] Ministry of Culture and Tourism of the PRC, "Wenhuabu fubuzhang zhao shaohua tan haiwai Zhongguo wenhua zhongxin jianshe" (Vice Minister of Ministry of Culture Zhao Shaohua Talks About the Establishment of Overseas China Cultural Centers), 27 August 2012, at <http://www.gov.cn/gzdt/2012-08/27/content_2211453.htm> [13 February 2024].

[77] According to the Confucius Institute Annual Development Report 2022, there were 492 CIs established worldwide.

CCCs' slower growth has led to less criticism.[78] As Liu argues, the Chinese saying "a tall tree catches the wind" (*shuda zhaofeng*) illustrates how CIs, with their considerably larger presence, are more likely to attract controversy.[79]

The geographical locations of CCCs are also an important factor in this regard. As shown in Table 1, CCCs are spread across five continents, with Europe and Asia being the primary locations. Notably, there are no CCCs in the United States, where China's cultural diplomacy is arguably the most controversial. This is evidenced by the fact that the United States has shut down 89 out of the 122 CIs in the country—the largest number of closures of CIs to date.[80] There is no direct evidence to suggest that the absence of CCCs in the United States is an intentional act by the Chinese government; this absence explains, partly, the lower degree of resistance to CCCs' operation abroad compared to CIs'.

From a structural perspective, CCCs are often located in capitals or major cities of their host countries.[81] They are established as stand-alone organisations, physically independent entities without fixed local partners. CCC venues are set up mainly in three ways: constructing on purchased land, buying an existing building or renting a site in the host country.[82] China's approach to establishing CCCs is similar to that of European cultural institutes such as the Alliance Française, Goethe-Institut and British Council, which are also established abroad as stand-alone branches and coordinated by a governing body in their home countries.[83] Such a structural approach differs from that of CIs, which are typically established as "joint ventures" between Chinese and international partner organisations within foreign universities.[84]

The way CCCs have been established, as argued by an interviewee, mirrors the approach adopted by the aforementioned foreign cultural institutes. The adherence to "international convention" therefore makes CCCs less controversial.[85] Other interviewees also supported the view that the structure of CCCs helped them avoid potential controversy. A former Australian diplomat noted that:

> the Cultural Centers [resemble more closely] other bodies, let us say the Deutsch Institute [*sic*] or the Japan Foundation [from] other countries, which have cultural centres in Australia. It's a structure which Australia was already familiar with

[78] Zhang and Guo, "The Effectiveness of Chinese Cultural Centers in China's Public Diplomacy".
[79] Liu, *China's Cultural Diplomacy*, p. 68.
[80] Jeffrey Gil, "The Fall of Confucius Institutes and Confucius Classrooms? An Analysis of Closures and Future Directions", *Melbourne Asia Review*, no. 11 (2022).
[81] Ministry of Culture and Tourism of the PRC, "Wenhuabu 2015 nian diyi jidu lixing xinwen fabuhui" (The Regular Press Conference of the Ministry of Culture in the First Quarter of 2015), 11 February 2015, at <https://www.mct.gov.cn/vipchat/home/site/2/216/article.html.> [13 February 2024].
[82] Ibid.
[83] Hartig, *Chinese Public Diplomacy*.
[84] Ibid., p. 103.
[85] Interviewee no. 4, interview conducted on 9 April 2022.

> because it had been done by other countries, so they understood what the Cultural Center was about.[86]

The same interviewee argued that the structure of CCCs made them "more transparent, more easily understood", compared to CIs, which the general public tended to perceive as "hiding behind the walls of the university. And therefore, they don't [quite] understand what CIs are about or how they operate".[87]

An academic echoed this sentiment, stating that as CIs were established within universities, they could be perceived by some as organisations designed to "infiltrate Australian educational institutions…whereas the Cultural Center doesn't infiltrate anyone".[88]

ACTIVITIES OF CHINA CULTURAL CENTERS

According to the official website of CCCs, they offer a wide range of cultural events, including performances, exhibitions, art festivals, talks, and cultural and sports contests. They also host courses on Chinese language and culture, as well as sports and exercise, and provide information services through their libraries to the public in host countries. These activities are not vastly different from those conducted at CIs, which also include Chinese language courses and cultural events, such as exhibitions, screenings and talks.[89]

However, despite some overlaps, scholars have suggested that CCCs' activities are centred primarily on arts and culture,[90] whereas the CIs' are focused mainly on language.[91] One senior arts administrator explained that CCCs were more engaged in "presentational, cultural activity, whether it be through music, dance or visual arts", while CIs were "primarily academically orientated".[92] In other words, CCCs deliver events largely through the presentation of arts and cultural programmes, whereas CIs conduct language-based activities through tertiary education in host universities.

The difference between a cultural and educational approach, as perceived by a former Australian diplomat, is that the former approach is easier to separate from politics compared to the latter.[93] This is true to a certain degree; in the case of the CI teaching programmes, a Chinese curriculum could be taught by teachers dispatched

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[86] Interviewee no. 7, interview conducted on 19 April 2022.
[87] Ibid.
[88] Interviewee no. 5, interview conducted on 13 April 2022.
[89] Hartig, *Chinese Public Diplomacy*.
[90] Guo Zhenzhi and Zhang Xiaoling, "Haiwai Zhongguo wenhua zhongxin fazhan celüe sikao—yi kongzi xueyuan wei jingjian" (Thoughts on the Developmental Strategy of China Cultural Centers: Based on Lessons from Confucius Institutes), *Xinwen chunqiu* (*Journalism Evolution*), no. 2 (2016): 4–9.
[91] Liu, *China's Cultural Diplomacy*.
[92] Interviewee no. 3, interview conducted on 7 April 2022.
[93] Interviewee no. 9, interview conducted on 26 April 2022.

from China who "may implicitly try to persuade the students to see the stance of the Chinese government".[94] As a Chinese director of a CI in the United Kingdom stated:

> We have to have a firm stand about the "five positions"—Tibet, Taiwan, Xinjiang, Falun Gong and democratic movement— there are principles that we must stick to as government-sponsored teachers…we are state-sponsored, so the minimum we should do is not to harm national interest. This is the bottom line.[95]

It is in this context that an Australian academic held that:

> The Confucius Institutes are very much about shaping an understanding of Chinese culture within a much more contemporary political framework in the sense that the interests of the Chinese state are much more to the fore in the Confucius Institute, than they are in the [China] Cultural Center. [It] doesn't mean they're not in the [China] Cultural Center, it's just they're not so apparent in the [China] Cultural Center.[96]

Indeed, CCCs are closely aligned with China's national interests, as evidenced by their strategic aims. It is likely that the directors and managerial staff of CCCs, appointed by the Ministry of Culture and Tourism, would publicly uphold the "five positions" as articulated by the Chinese CI director in the United Kingdom. However, CCCs' approach to presenting arts and cultural programmes in their own venue makes politically related issues less likely to be expounded and confronted in host countries, particularly in comparison to CIs' teaching activities within foreign universities.

The approach by which CIs conduct their language teaching programmes has led to concerns that they allow the Chinese government to exert influence over the study of China and Chinese language in foreign universities,[97] and that they could inhibit "the candid discussion, inquiry, and research that are essential to university life" due to university staff's potential self-censorship on topics sensitive to the Chinese government.[98] These concerns have led organisations such as the Canadian Association of University Teachers and the American Association of University Professors to call for the termination of CIs in Canada and the United States.[99] Therefore, Liu argues

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[94] Liu, *China's Cultural Diplomacy*, pp. 66–7.

[95] Ibid., p. 131.

[96] Interviewee no. 5, interview conducted on 13 April 2022.

[97] Anne-Marie Brady, *Marketing Dictatorship: Propaganda and Thought Work in Contemporary China* (Lanham, MD: Rowman & Littlefield, 2008).

[98] Lionel M. Jensen, "Culture Industry Power and the Spectacle of China's Confucius Institutes", in *China in and beyond the Headlines*, ed. Timothy B. Weston and Lionel M. Jensen (Lanham, MD: Rowman & Littlefield, 2012), p. 294.

[99] Canadian Association of University Teachers, "Canadian Campuses Urged to End Ties with Confucius Institutes", January 2014, at <https://bulletin-archives.caut.ca/bulletin/articles/2014/01/canadian-campuses-urged-to-end-ties-with-confucius-institutes> [13 Febuary 2024]; American Association of University Professors, "On Partnerships with Foreign Governments: The Case of Confucius Institutes", June 2014, at <https://www.aaup.org/file/Confucius_Institutes_0.pdf> [13 February 2024].

that conducting teaching activities on foreign university campuses is the reason why CIs are perceived as "more intrusive".[100]

From a broader perspective, one interviewee argued that the CIs' way of conducting language teaching was "incompatible" with a Western tertiary environment, which supports academic freedom and freedom of speech—elements that the Chinese educational and political systems lack.[101] As he further explained:

> In the Chinese [political] system, there are many forbidden areas [for open debates], which are not supposed to exist in universities [in Western countries]. Therefore, it is inevitable that [CIs] would face intense conflict with the system adopted by Western universities. I'm not commenting on who is right or wrong, but at least they are incompatible. Whereas the China Cultural Center establishes its presence publicly; it can promote whatever it wants and I don't think it contradicts anything.[102]

In this context, the same interviewee suggested that the presentation of arts and cultural activities by CCCs, coupled with their stand-alone structure, helped the centres avoid the "clashes" that campus-based CIs might encounter within Western educational institution.[103]

PRACTICAL ISSUES OF CHINA CULTURAL CENTERS

On a practical level, CCCs also face several challenges, primarily related to two general aspects: funding and staffing.

Funding

Funding for CCCs comes mainly from the Chinese government. In 2015, the Ministry of Culture and Tourism announced that the government had invested approximately RMB1.33 billion (US$214 million) in establishing CCCs.[104] Judging from data from the Ministry, the 2015 budget for the establishment, operation and activities of CCCs was RMB360 million (US$51 million), a 181 per cent increase compared with the preceding year.[105] Despite this increase, researchers argue that CCCs remain

[100] Liu, *China's Cultural Diplomacy*, p. 67.
[101] Interviewee no. 4, interview conducted on 9 April 2022.
[102] Ibid.
[103] Ibid; despite negative perceptions of CIs mentioned in this section, there have been few proven instances where a CI has proactively engaged in conducting inappropriate activities or influenced activities at foreign universities.
[104] Ministry of Culture and Tourism of the PRC, 11 February 2015, "Wenhuabu 2015 nian diyi jidu lixing xinwen fabuhui" (The Regular Press Conference of the Ministry of Culture in the First Quarter of 2015), 11 February 2015, at <https://www.mct.gov.cn/vipchat/home/site/2/216/article.html.> [13 February 2024].
[105] Ibid.

underfunded.[106] CCCs' lack of financial support is evident when compared with CIs, which received about US$319 million from the Chinese government in 2015, more than six times the funding allocated for CCCs the same year.[107] One could argue that this discrepancy is due to the smaller number of CCCs, compared to CIs. Hence, the CCCs may appear to be better funded than CIs. However, CCCs can be more expensive to set up and operate, considering the costs associated with establishing and operating stand-alone venues in prime locations in host countries. This contrasts with CIs, which largely rely on facilities provided by local partner institutions.[108]

The annual budget of the Ministry of Culture and Tourism, particularly in the category of "diplomatic expenses", provides a broader view of China's financial support for overseas cultural and tourism organisations, the majority of which are CCCs (Table 2).

TABLE 2
Ministry of Culture and Tourism Budgets for Diplomatic Expenditure, 2019–22

	Diplomatic Expenditure (in RMB1,000,000)		
Year	**Total**	**Basic Expenditure**	**Programme Expenditure**
2019	454.9064	73.6564	381.25
2020	367.0532	65.9632	301.09
2021	216.6482	60.0682	156.58
2022	182.8120	21.2320	161.58

Source: Compiled based on data from the Ministry of Culture and Tourism annual budget reports from 2019 to 2022. These reports are accessible online. At the time of writing, the RMB:US$ exchange rate is approximately 1:0.14.

The Chinese government's annual budget for overseas cultural and tourism organisations has decreased considerably in recent years, reflecting a sharp decline in CCCs' financial income. This trend contrasts sharply with other foreign cultural diplomacy initiatives. For example, the British Council's 2021–22 Annual Report and Accounts indicates that it received £183 million (US$222 million) in grant-in-aid income from the British government, a slight increase from £145 million (US$170 million) received the previous year.[109] Similarly, the Japanese government also provides a substantial endowment of 78 billion yen (US$568 million) to support the operation of the Japan Foundation.[110] The Ministry of Culture and Tourism acknowledged that the reduction in funding

[106] Chen Boqian and Wang Zinuo, "Zhongguo wenhua zhongxin de haiwai chuanbo lujing—yi Mangu weili" (The International Communication Path of China Cultural Center: The Case of Bangkok), *Yanshan daxue xuebao (Zhexue shehui kexue ban)* (*Journal of Yanshan University [Philosophy and Social Sciences Edition]*) 20, no. 2 (2019): 65–73.
[107] Ibid.
[108] Hartig, *Chinese Public Diplomacy*.
[109] See The British Council, "2021-22 Annual Report and Accounts", at <https://www.britishcouncil.org/sites/default/files/british_council_annual_report_final.pdf> [13 February 2024].
[110] Japan Foundation, "About Us", at <https://www.jpf.go.jp/e/about/index.html#:~:text=Based%20on%20a%20government%20endowment%20of> [13 February 2024].

in 2020 was due to the COVID-19 pandemic, and that from 2020 to 2022 was in response to the central government's call to "tighten the belt" (*guo jin rizi*) and cut back on general expenditure.[111]

This analysis shows that CCCs are indeed insufficiently funded and that the lack of financial support from the Chinese government is likely to continue. Such issues could potentially impede the development and programming of CCCs. For instance, former Chinese Ambassador to Mauritius Bian Yanhua admitted that insufficient funding had hindered the upgrade of technology and infrastructure at the CCC there.[112] Former Chinese Minister-Counsellor for Culture in France Lü Jun indicated that the lack of financial support had affected the number and duration of events held at the CCC in Paris.[113] Former director of the CCC in Benin Bai Guangming expressed his hope for a larger budget to develop cultural activities to appeal to local audiences, who were less attracted to existing programmes that were no longer novel.[114]

To address these issues, the Chinese government has encouraged social organisations and state-owned enterprises to participate in developing CCCs. Furthermore, the Ministry of Culture and Tourism has sought collaboration with Chinese provinces and cities to co-establish CCCs. However, these measures present uncertainties. Despite the Chinese government's call for more actors to be involved in establishing CCCs, there have been very few cases of such involvement. Given the Chinese government's leading role in driving the development of CCCs, it remains to be seen how and to what extent non-state actors can participate. Furthermore, although the Ministry has managed to build several CCCs in partnership with Chinese local governments, the sustainability of this collaborative model is unclear.[115] This is particularly relevant as fiscal pressure on Chinese local governments has intensified following China's stringent zero-COVID policies, as evidenced by all 31 Chinese

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[111] Ministry of Culture and Tourism of the PRC, "Wenhua he lüyou bu 2020 niandu bumen yusuan" (Ministry of Culture and Tourism 2020 Annual Budget), June 2020, at <https://www.mct.gov.cn/whzx/ggtz/202006/P020200611569912605268.pdf> [13 February 2024]; "Wenhua he lüyou bu 2021 niandu bumen yusuan" (Ministry of Culture and Tourism 2021 Annual Budget), March 2021, at <https://zwgk.mct.gov.cn/zfxxgkml/cwxx/ysjs/202103/W020210325579865583715.pdf> [13 February 2024]; "Wenhua he lüyou bu 2022 niandu bumen yusuan" (Ministry of Culture and Tourism 2022 Annual Budget), 24 March 2022, at <https://zwgk.mct.gov.cn/zfxxgkml/cwxx/ysjs/202203/W020220401512855610726.pdf> [13 February 2024].

[112] Li Xiaolin and Su Xiaoming, "Haiwai Zhongguo wenhua zhongxin: rang Zhonghua wenhua genghao gengguang de chuanbo" (Overseas China Culture Centers: Promoting Chinese Culture More Widely and Effectively), *China Culture Daily*, 28 June 2012, at <https://nepaper.ccdy.cn/html/2012-06/28/content_74688.htm> [13 February 2024].

[113] Ibid.

[114] Zhang and Guo, "The Effectiveness of Chinese Cultural Centers in China's Public Diplomacy".

[115] Examples of co-establishment include CCCs in Brussels (with the Shanghai Municipal Government), Den Haag (with the Jiangsu Provincial Government), Athens (with the Beijing Municipal Government), Budapest (with the Suzhou Municipal Government) and Belgrade (with the Shandong Provincial Government).

provincial regions except Shanghai logging a financial deficit in the first seven months of 2022.[116] This situation reflects China's broader economic situation, which is experiencing a downturn.[117] Despite these uncertainties, the financial aspects of CCCs are worth observing, as they concern the continuity of cultural diplomacy, which requires a long-term focus to generate returns.

Staffing

In addition to the funding shortfall, staffing presents a significant challenge for CCCs. Researchers have highlighted that CCCs are often understaffed and it is common for a single staff member to handle multiple roles in daily operations.[118] Wu notes that most CCCs have only one librarian, who is frequently overwhelmed by multiple tasks such as procurement, cataloguing, shelving, borrowing, consulting and event organisation.[119] Wang observes in his research on various CCCs in Europe that the lack of staff has led to delays in updating information on CCCs' websites and social media.[120]

The lack of professionals—especially experts in the local language and culture of host countries—at CCCs poses another staffing challenge. Researchers have noted that former director of the CCC in Benin Bai Guangming has limited proficiency in French, which is the official language of Benin, hence hindering his communication with local Beninese.[121] Similarly, the librarian at the CCC in Bangkok cannot speak Thai, creating obstacles to interacting with and serving local visitors.[122] The lack of local language proficiency among CCC staff also manifests, perhaps indirectly, the fact that English and Chinese are commonly used by CCCs to promote activities in host countries, and that local languages are often absent. For example, the websites of CCCs in Luxembourg, Kuala Lumpur and Phnom Penh do not include content

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[116] "China's Provinces Suffer Major Fiscal Hit from Covid Zero", Bloomberg News, 19 September 2022, at <https://www.bloomberg.com/news/articles/2022-09-18/cost-of-covid-zero-is-straining-municipal-finances-across-china?leadSource=uverify%20wall> [13 February 2024].

[117] Laura He, "China's Economy Had a Miserable Year. 2024 Might be Even Worse", CNN Business, 29 December 2023, at <https://edition.cnn.com/2023/12/27/economy/china-economy-challenges-2024-intl-hnk/index.html> [5 February 2024].

[118] Wei Zhimin and Chen Lu, "Tisheng haiwai Zhongguo wenhua zhongxin de chuanbo nengli" (Improving Overseas China Cultural Centers' Communication Capacity), *Hongqi wengao* (*Red Flag Manuscript*), no. 4 (2015): 29–30.

[119] Wu Xueliang, "Haiwai Zhongguo wenhua zhongxin tushuguan fazhan moshi tanjiu" (Research on the Development Model of Overseas China Cultural Centers' Libraries), *Tushuguan gongzuo yu yanjiu* (*Library Work And Study*), no. 4 (2018): 11–6.

[120] Wang Song, *Wenhua waijiao shijiao xia de Ouzhou Zhongguo wenhua zhongxin yanjiu* (*Research on China Cultural Centers in Europe Through the Lens of Cultural Diplomacy*).

[121] Zhang and Guo, "The Effectiveness of Chinese Cultural Centers in China's Public Diplomacy".

[122] Wang Zinuo et al., "Haiwai Zhongguo wenhua zhongxin guoji chuanbo nengli yanjiu: jiyu Taiguo de ge'an diaocha" (Research on the International Communication Capacity of the China Cultural Centers Abroad: An Investigation Based on the Case of Thailand), *Guoji chuanbo* (*Global Communication*), no. 4 (2021): 75–86.

in official languages of these host nations.[123] While CCCs in Copenhagen and Stockholm have featured Danish and Swedish, respectively, in limited areas on their websites, much of the online content remains in English and Chinese. This situation could limit the effective promotion of CCCs, particularly in countries with official languages other than or in addition to English or with multilingual environments.

To address these issues, CCCs have recruited local employees who possess relevant language skills and knowledge of local societies. For example, the CCC in Benin hired a Beninese employee, who had studied in China for over a decade and held a PhD in the Diplomacy of Contemporary China. The local staff member, Maurice Gountin, assisted with translation, interpretation, teaching and programming activities, and public relations at the CCC.[124] Similarly, the CCC in Sydney employed local staff with Chinese cultural heritage as programming and administrative assistants. According to some interviewees, these employees played an important role in contributing to the CCC's work in Australia due to their bilingual skills,[125] their understanding of the local community,[126] and relevant educational background in arts and culture.[127]

Despite these benefits, Chen argues that CCCs "cannot completely rely on foreign employees" due to security and confidentiality concerns.[128] This is unsurprising, given the Chinese government's tight control over its cultural diplomacy. However, it is essential to emphasise that relevant skills and familiarity with the local context are critical elements and should be considered as key criteria for CCC staffing, regardless of whether the staff are dispatched from China or hired locally. Cultural diplomacy is not merely a one-way cultural presentation but aims to foster mutual understanding, therefore requiring continual interaction and engagement with audiences in host countries.

CONCLUSION

This article has examined CCCs through the lenses of their purpose, key relationships, set-up and activities. The expansion of CCCs began as China placed greater emphasis on the role of culture in its national outreach strategy. Since then, China has increased its efforts to promote its culture abroad, aiming to shape a positive image, champion its ideas and values, and gain global influence. These strategic motivations are integral to the establishment of CCCs abroad, reflecting a functional understanding of Chinese cultural diplomacy.

Administratively, CCCs are supervised by the Bureau for International Exchange and Cooperation of the Ministry of Culture and Tourism and operated through headquarters formed by entities affiliated with the Ministry of Culture and Tourism.

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[123] Official languages in Luxembourg are Luxembourgish, German and French.
[124] Zhang and Guo, "The Effectiveness of Chinese Cultural Centers in China's Public Diplomacy".
[125] Interviewee no. 10, interview conducted on 29 April 2022.
[126] Interviewee no. 8, interview conducted on 24 April 2022.
[127] Interviewee no. 2, interview conducted on 11 March 2022.
[128] Chen, "Haiwai Zhongguo wenhua zhongxin fazhan licheng zongshu" (A Review of the Development of Overseas China Cultural Centers), p. 38.

This structure reveals a centralised method of operating CCCs, consistent with China's top-down approach to cultural diplomacy. The operation of CCCs also intersects with other non-governmental organisations which, although not part of the Chinese government, are actors either connected with or under the guidance of the Ministry. This further demonstrates the Chinese government's leading role in its international cultural endeavours. Despite their strong link to the Chinese government, however, CCCs have thus far evaded criticism from outside China, especially when compared with CIs. This is largely due to their set-up and primary focus on presenting arts and cultural programmes in host countries, hence leading to a less intrusive and controversial perception abroad.

While some researchers consider the lack of criticism of CCCs as a proof of success,[129] Liu challenges such a notion by suggesting that the purpose of cultural diplomacy is not simply to avoid controversy.[130] Given that cultural diplomacy aims to foster mutual understanding, CCCs' avoidance of controversy is, indeed, not direct evidence of their success in this regard. In fact, their strong strategic underpinnings appear to deviate from the genuine objective that cultural diplomacy intends to achieve. However, the less critical reaction to CCCs from abroad remains valuable to Chinese cultural diplomacy. This is because the prospects of such cultural endeavours are partly "shaped through responses to them" in host countries, as demonstrated in the case of CIs.[131] Therefore, a lack of resistance to CCCs abroad leads to a less harsh international environment, which partially alleviates external hindrances to their continued operation and development.

What could then potentially contribute to the success of CCCs through the lens of cultural diplomacy? While the development of the CCC project distinctively focuses on numerical targets and speed, it remains to be seen if such cultural practices can facilitate mutual understanding with the foreign public. In addition, the success of CCCs also hinges on how the practical challenges that CCCs face can be further addressed to ensure a sustainable and effective operation abroad. Achieving these goals will require more idealistic thinking and flexibility in managing the CCC project. Nonetheless, adapting these aspects may prove challenging for Chinese cultural diplomacy, which remains largely driven by a functional mindset and is implemented through a top-down approach.

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[129] Zhang and Guo, "The Effectiveness of Chinese Cultural Centers in China's Public Diplomacy".
[130] Liu, *China's Cultural Diplomacy*.
[131] Gil, "The Fall of Confucius Institutes and Confucius Classrooms?".

China's Response to the Tax Challenges of the Digital Economy: Current Stance and Future Strategies

CUI Xiaojing and SUN Yi

To address the tax challenges of the digital economy, the international community has proposed three main solutions: unilateral digital taxes, the United Nations' bilateral solution and the Organisation for Economic Co-operation and Development's multilateral solution (Pillar One Solution). China has explicitly expressed support only for the Pillar One Solution. Its support can be attributed to two primary reasons. First, the Pillar One Solution, as a multilateral approach, aligns with China's international tax strategy, which favours multilateralism. Second, the Pillar One Solution aligns with China's economic interests, considering its impact on China's fiscal revenue, multinational enterprises and administrative costs. Given the uncertainty surrounding the implementation of the Pillar One Solution, this article explores China's legal strategy for implementing it and examines alternative measures that China can adopt if the Pillar One Solution fails.

INTRODUCTION

The current international tax system has its origins in the 1923 Report on Double Taxation submitted by four economists for the League of Nations. This Report proposed that a jurisdiction's right to tax cross-border income should be based on "economic allegiance", i.e. the degree of connection between a national or his/her income and a particular tax jurisdiction should be sufficiently close.[1] At the time, brick-and-mortar businesses dominated the economic sectors—this implies that a physical presence in a jurisdiction was necessary to enforce tax laws.[2] However, in recent years, the development of information and communications technology (ICT)

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[1] W.H. Coates, "League of Nations Report on Double Taxation Submitted to the Financial Committee by Professors Bruins, Einaudi, Seligman, and Sir Josiah Stamp", *Journal of the Royal Statistical Society* 87, no. 1 (1924): 99–102.

[2] Annet Wanyana Oguttu, "A Critique from a Developing Country Perspective of the Proposals to Tax the Digital Economy", *World Tax Journal* 12, no. 4 (2020): 800; Vishesh Dhuldhoya, "The Future of the Permanent Establishment Concept", *Bulletin for International Taxation* 72, no. 4a (2018).

has not only revolutionised the way of doing business, allowing instantaneous reach of global customers at minimal costs,[3] but also posed challenges to the current international tax system. There are, in particular, fundamental questions about "how enterprises in the digital economy add value and make their profits", and "how the digital economy relates to the concepts of source and residence or the characterisation of income for tax purposes".[4]

In response to these challenges, the international community has proposed various solutions, including unilateral digital tax measures, modifications to the United Nations Model Double Taxation Convention between Developed and Developing Countries (UN Model Tax Convention) at the bilateral level, and the Organisation for Economic Co-operation and Development (OECD) Pillar One Solution at the multilateral level. However, the co-existence of unilateral, bilateral and multilateral proposals has resulted in a chaotic state of international tax rules. In October 2021, over 135 jurisdictions of the OECD/G20 Inclusive Framework jointly issued a *Statement on a Two-Pillar Approach to Addressing the Tax Challenges Arising from the Digitalisation of the Economy* (Two-Pillar Statement), reaching a consensus on the Two-Pillar approach.[5] Subsequently, in July 2023, 138 Inclusive Framework members, representing over 90 per cent of global gross domestic product (GDP), issued a new Outcome Statement on the Two-Pillar Solution, pledging to facilitate the entry into force of the Multilateral Convention to implement Amount A of Pillar One (Amount A Multilateral Convention) in 2025.[6] If successfully implemented, this convention will lead to the removal of digital service taxes (DSTs) and similar unilateral measures.[7] However, it is premature to celebrate the success of Pillar One. Due to existing uncertainties, several potential challenges in its implementation remain.[8] As political deals, these statements are not legally

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[3] Organisation for Economic Co-operation and Development (OECD), *Digital Economy Outlook* (Paris: OECD Publishing, 2017), p. 47.

[4] OECD, *Addressing the Tax Challenges of the Digital Economy, Action1–2015 Final Report* (Paris: OECD Publishing, 2015).

[5] As of 9 June 2023, 139 member jurisdictions had agreed to the two-pillar approach. See OECD, "Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy—8 October 2021", at <https://www.oecd.org/tax/beps/statement-on-a-two-pillar-solution-to-address-the-tax-challenges-arising-from-the-digitalisation-of-the-economy-october-2021.htm> [27 June 2024].

[6] Amount A refers to the new taxing right over multinational enterprises' residual profits, intended to expand tax rights for market jurisdictions. The Outcome Statement had been approved by 142 Inclusive Framework members as of 28 May 2024. See OECD, "Outcome Statement on the Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy—11 July 2023", at <https://www.oecd.org/tax/beps/outcome-statement-on-the-two-pillar-solution-to-address-the-tax-challenges-arising-from-the-digitalisation-of-the-economy-july-2023.htm> [27 June 2024].

[7] According to Art. 38 of the Amount A Multilateral Convention, a Party shall not apply any digital service tax or relevant similar measure.

[8] Li Jinyan, "The Global Tax Agreement: Some Truths and Legal Realities", 2022, Osgoode Hall Law School of York University, at <https://digitalcommons.osgoode.yorku.ca/cgi/viewcontent.cgi?article=1350&context=all_papers> [25 February 2024].

binding on any Inclusive Framework member. Moreover, given that some Inclusive Framework members reportedly joined the deal because of external pressure rather than genuine endorsement of Pillar One,[9] the consensus for its implementation is expected to be fragile.

China appears to be less proactive compared to other economies in this process. Unlike the European Union (EU) and India, China has not introduced unilateral digital taxes but neither has it strongly opposed them, as the United States has done. Before the release of the Two-Pillar Statement in October 2021, the Ministry of Finance and the State Taxation Administration of the People's Republic of China (PRC) did not publicly express China's official position. This contrasts with China's active advocacy during the OECD/G20 Base Erosion and Profit Shifting (BEPS) Project negotiations, where it made several recommendations reflecting its interests and those of other developing countries.[10]

As a digital power as well as an active participant in global tax governance, China's relatively subdued actions in addressing tax challenges arising from the digital economy have puzzled many China observers. These questions need scrutiny: Is the Pillar One Solution China's preferred choice? What preparations should be undertaken domestically to facilitate the implementation of the Amount A Multilateral Convention if China decides to sign it? If Pillar One fails, what alternatives does China have?

This article aims to fill this research gap by providing a comprehensive analysis of China's current stance and possible actions in response to the tax challenges of the digital economy. The second section introduces the three primary solutions proposed to address these challenges: unilateral digital levies, the introduction of Article 12B of the UN Model Tax Convention and the Pillar One Solution. The third and fourth sections explain the rationales for China's support of the Pillar One Solution, namely the Solution's alignment with China's international tax strategy and its economic interests. The fifth section examines potential actions that China may take under two scenarios: if the Amount A Multilateral Convention is implemented, and if it is not. The sixth section concludes the article.

PROPOSED SOLUTIONS FOR THE TAX CHALLENGES OF THE DIGITAL ECONOMY

Unilateral Digital Taxes

An increasing number of jurisdictions have introduced new taxes targeting the digital sectors, such as the digital service tax (DST) and the equalisation levy on digital firms that operate within their jurisdictions without a physical presence.

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[9] Nana Ama Sarfo and Stephanie Soong Johnston, "A Brave Bet: The Inclusive Framework's High-Stake Future", at <https://www.taxnotes.com/tax-notes-international/base-erosion-and-profit-shifting-beps/brave-bet-inclusive-frameworks-high-stakes-future/2021/12/20/7cpl6> [25 February 2024].

[10] Li Jinyan, "China's Rising (and the United States' Declining) Influence in Global Tax Governance? Some Observations", *Bulletin for International Taxation* 75, no. 11/12 (2021): 735.

Digital service tax

The digital service tax is a notable example of unilateral digital taxes. On 22 March 2018, the Council of the European Union released a *Proposal for a Council Directive on the Common System of a Digital Services Tax on Revenues Resulting from the Provision of Certain Digital Services*.[11] The proposal targets gross revenues, with a tax rate of three per cent, from three categories of digital services: (i) placing advertisements on a digital interface targeted at the interface users; (ii) making a multi-sided digital interface available for users' interaction and potentially to facilitate direct transactions and the provision of goods and services between users; and (iii) transmitting user data collected from activities on digital interfaces.[12] This proposal specifically targets large digital enterprises, with a 750 million euro worldwide revenue threshold and a 50 million euro EU revenue threshold.[13] As of May 2024, many jurisdictions, including France,[14] Austria,[15] Italy[16] and the United Kingdom,[17] have introduced a digital service tax.

While the specifics of these digital taxes vary, they share several common features: (i) they are enacted unilaterally; (ii) they adopt dual thresholds based on global and local revenue; (iii) they are imposed on a gross basis rather than on net income; (iv) they ring-fence particular (albeit different) activities; (v) they have a relatively low tax rate (often at below five per cent).[18]

Equalisation Levy

India's equalisation levy[19]—a separate tax introduced in 2016—drew upon several features from the options provided in the *Addressing the Tax Challenges of the Digital Economy, Action1–2015 Final Report*.[20] Initially, the equalisation levy targeted specific

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[11] European Commission, "Proposal for a Council Directive on the Common System of a Digital Services Tax on Revenues Resulting from the Provision of Certain Digital Services", 21 March 2018, at <https://taxation-customs.ec.europa.eu/system/files/2018-03/proposal_common_system_digital_services_tax_21032018_en.pdf> [27 February 2024].

[12] Ibid., Art. 3(1).

[13] Ibid., Art. 4(1).

[14] Law no. 759/2019 of France.

[15] Digital Tax Act 2020 of Austria.

[16] Budget Law 2019 (Law no. 145/2018) of Italy, Art. 1.

[17] Finance Act 2020 (2020 c. 14) of the United Kingdom, Part 2.

[18] World Bank Group, "Digital Services Tax: Country Practice and Technical Challenges", 2021, at <https://openknowledge.worldbank.org/bitstream/handle/10986/36840/P169976002e89a07209ae40d48d6ebb7154.pdf?sequence=1&isAllowed=y> [7 April 2024].

[19] The term "equalisation levy" is named to reflect its goal: to equalise the tax treatment between foreign digital companies and local businesses within India's digital economy. See Press Information Bureau of India, "India's response to S 301 Report of U.S. on Equalisation Levy", 7 January 2021, at <https://pib.gov.in/pressreleaseshare.aspx?prid=1686865>[30 October 2024].

[20] OECD, *Addressing the Tax Challenges of the Digital Economy, Action 1–2015 Final Report*, pp. 113–7.

advertising services, with a tax rate of six per cent.[21] In 2020, the scope of the levy was expanded to include e-commerce transactions at a tax rate of two per cent.[22] However, the tax on e-commerce transactions was abolished on 1 August 2024.[23]

Article 12B of the UN Model (2021)

According to the distributive rules in double tax treaties, for items of passive income such as dividends, interests and royalties, source jurisdictions—namely jurisdictions where the payer is resident—can impose a withholding tax from non-residents on a gross basis, without needing to satisfy the permanent establishment threshold.[24] To strengthen source-based taxing rights, the UN Tax Committee recommended expanding the applicability of withholding tax.

In April 2021, the UN Tax Committee approved a new Article 12B of the UN Model Tax Convention (2021), allowing source jurisdictions to tax income from automated digital services earned by non-resident beneficial owners without a permanent establishment in that jurisdiction.[25] The term "automated digital services" refers to any services provided on the internet or another electronic network requiring minimal human involvement from the service provider, including online advertising services, supply of user data, online search engines, online intermediation platform services, social media platforms, digital content services, online gaming, cloud computing services and standardised online teaching services.[26] This tax is levied on a gross basis at a rate to be agreed upon in bilateral treaty negotiations, unless the taxpayer opts for net taxation of the automated digital services income in the source jurisdiction at the tax rate specified by its domestic laws.[27]

The Pillar One Solution

The two-pillar proposal, which consists of Pillar One and Pillar Two, was first released in May 2019 when Inclusive Framework members agreed on a *Programme of Work to Develop a Consensus Solution to the Tax Challenges Arising from the Digitalisation of the Economy*.[28] Pillar One aims to allocate more taxing rights to market jurisdictions through revised nexus and profit allocation rules. Pillar Two sets a floor on tax

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[21] Finance Act 2016 (Law no. 28/2016) of India, Section 165.

[22] Ibid., Section 165A.

[23] Government of India, "Budget 2024-2025: Speech of Nirmala Sitharaman, Minister of Finance", 23 July 2024, at <https://www.indiabudget.gov.in/doc/Budget_Speech.pdf> [30 October 2024].

[24] OECD Model Tax Convention, Arts. 10–12.

[25] UN Model Tax Convention, Art. 12B (1) and (2).

[26] Ibid., Art. 12B (5) and (6).

[27] Ibid., Art. 12B (2) and (3).

[28] OECD, "Programme of Work to Develop a Consensus Solution to the Tax Challenges Arising from the Digitalisation of the Economy", 31 May 2019, at <https://www.oecd.org/tax/beps/programme-of-work-to-develop-a-consensus-solution-to-the-tax-challenges-arising-from-the-digitalisation-of-the-economy.htm> [9 February 2023].

competition over corporate income tax by introducing a 15 per cent global minimum tax.[29] While the overall Two-Pillar Solution targets tax challenges posed by the digital economy, this article will focus specifically on Pillar One, as Pillar Two is not directly related to the taxation of the digital economy.

The Pillar One Solution consists of two main components, namely Amount A and Amount B. Amount A, also known as the new taxing right for market jurisdictions, is the more significant and revolutionary component. It is allocated based on a formula, rather than by using the traditional arm's length principle. According to the *Tax Challenges Arising from Digitalisation—Report on Pillar One Blueprint* released in 2020, the scope of Amount A was limited to automated digital services and consumer-facing businesses,[30] but this activity test was subsequently eliminated. According to the Amount A Multilateral Convention, for multinational enterprises (MNEs) with global turnover above 20 billion euro and profitability above 10 per cent, 25 per cent of residual profit (defined as profit in excess of 10 per cent of revenue) will be allocated to market jurisdictions with nexus using a revenue-based allocation key.[31] Generally, Amount A profits are allocated to a market jurisdiction when the in-scope MNE derives at least one million euro in revenue from that jurisdiction, with the nexus threshold reduced to 250,000 euro for jurisdictions with GDPs below 40 billion euro.[32]

Regarding Amount B, on 19 February 2024, the Inclusive Framework released a report detailing its design.[33] Amount B applies to buy-sell marketing and distribution transactions and sales agency and commissionaire transactions, without any revenue or profitability threshold.[34] In-scope transactions are priced by reference to a pricing matrix, except where internal comparable uncontrolled prices are available.[35]

Unlike Amount A, Amount B does not introduce a new taxing right. Instead, it offers a simplified and streamlined method for applying the arm's length principle to in-scope transactions. The content from this report has been incorporated into the OECD Transfer Pricing Guidelines as an annex to chapter IV.[36] This implementation approach contrasts with that of Amount A, underscoring that the implementation of Amount B is significantly more straightforward compared to Amount A.[37]

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[29] Michael Devereux and John Vella, "The Impact of the Global Minimum Tax on Tax Competition", *World Tax Journal* 15, no. 3 (2023): 326.

[30] OECD, *Tax Challenges Arising from Digitalisation—Report on Pillar One Blueprint* (Paris: OECD Publishing, 2020), sec. 2.2.

[31] Amount A Multilateral Convention, Arts. 2, 3 and 8.

[32] Ibid., Art. 8.

[33] OECD, "Pillar One—Amount B", at <https://www.oecd.org/en/publications/pillar-one-amount-b_21ea168b-en.html> [9 April 2024].

[34] OECD, *Pillar One—Amount B: Inclusive Framework on BEPS*, OECD/G20 Base Erosion and Profit Shifting Project (Paris: OECD Publishing, 2024), p. 17.

[35] Ibid., pp. 26–8.

[36] OECD, "Pillar One—Amount B".

[37] Simone Zucchetti, Griselda Lishi and Mauro Erb, "Pillar One, Amount B: Current Implications and Future Perspectives", *International Transfer Pricing Journal* 30, no. 5 (2023): 294.

PILLAR ONE AND CHINA'S INTERNATIONAL TAX STRATEGY

Among these solutions, China has publicly expressed support only for Pillar One. Statements from the Ministry of Finance and the State Taxation Administration of the PRC show that China's support stems primarily from the multilateral nature of Pillar One. In official statements and speeches in October 2021 and July 2023, the then Minister of Finance Liu Kun emphasised Pillar One's role in promoting a fair and reasonable international economic order.[38] Similarly, articles published on the official website of the State Taxation Administration and interviews with the officials of the administration highlighted Pillar One's potential positive impact on the global business environment and global tax governance.[39] This official stance aligns with China's international tax strategy.

China's International Tax Strategy in Practice

China has consistently supported resolving global tax issues through multilateral cooperation. Since 2013, China has signed key agreements such as: the Convention on Mutual Administrative Assistance in Tax Matters; the Multilateral Competent Authority Agreement on Automatic Exchange of Financial Account Information; and the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting.[40] These actions have demonstrated China's steadfast support for OECD initiatives aimed at enhancing global tax transparency and combating tax evasion.

With its growing economic strength in recent years, China seeks to play a more active role in projecting its power and influence in multilateral tax policies. The BEPS Project serves as a representative example, engaging China and marking its

[38] The State Council of the People's Republic of China (PRC), "Minister of Finance Liu Kun: Consensus on the Two-Pillar Proposal will Effectively Address the Tax Challenges Arising from Digitalisation of the Economy" (in Chinese), at <http://www.gov.cn/xinwen/2021-10/14/content_5642609.htm> [9 February 2023]; Ministry of Finance of the PRC, "Liu Kun Attended G20 Finance Ministers and Central Bank Governors Meeting" (in Chinese), at <https://www.mof.gov.cn/zhengwuxinxi/caizhengxinwen/202307/t20230718_3896967.htm> [9 April 2024].

[39] Xiao Yu, "The Two-Pillar Tax Reform Signals a New Dawn of Multilateralism in the Global Economy" (in Chinese), at <https://www.ctax.org.cn/sszh/202107/t20210707_1119493.shtml> [13 February 2023]; Sun Hongmei, "The Two-Pillar Approach Will Open a New Chapter in Global Tax Governance" (in Chinese), State Taxation Administration of the PRC, at <http://www.chinatax.gov.cn/chinatax/n810219/n810780/c5169614/content.html> [13 February 2023]; Han Lin, Gao Yang and Deng Ruyu, "The Historical Significance and Practical Response of the Two-Pillar International Tax Reform for the Digital Economy: Interview with Zhang Zhiyong, President of the China International Taxation Research Association and Meng Yuying, General Director of the Department of International Taxation of the State Taxation Administration" (in Chinese), *International Taxation in China*, no. 2 (2022): 3–5.

[40] State Taxation Administration of the PRC, "Tax Treaties" (in Chinese), at <https://www.chinatax.gov.cn/n810341/n810770/index.html> [9 April 2024].

transformation from a "norm-taker" to a "norm-shaker".[41] From 2013 to 2015, the State Taxation Administration participated in 86 BEPS meetings and submitted over 1,000 position statements and recommendations to the OECD.[42] Wang Li, a former deputy director general of the State Taxation Administration, highlighted that these activities were evidence of China's fulfilment of its international responsibility as a major global player.[43]

China has also sought to establish cooperation platforms radiating from itself as a nexus. Leveraging the Belt and Road Initiative (BRI), China established the Belt and Road Initiative Tax Administration Cooperation Mechanism (BRITACOM) to enhance tax administration cooperation and promote its advocacy of a growth-friendly tax environment, emphasising the positive role taxation should play in global economic development.[44] Although the establishment of BRITACOM represents China's innovation and ambition, this mechanism has so far appeared more supportive of, rather than challenging to, the global order.[45] As is evident on the official website of BRITACOM, part of its purpose is to support and complement prevailing international tax standards.[46]

Through these practices, China has therefore demonstrated itself as a steadfast supporter of multilateralism in global tax governance.

Alignment of Pillar One with China's International Tax Strategy

Pillar One, as a consensus-based solution, contributes to improving the global business environment by reducing cross-border tax barriers like digital sales taxes (DSTs) and mitigating potential trade conflicts. For China, supporting Pillar One not only aligns with the growth-friendly tax policies it advocates,[47] but also enhances its international image as a proponent of multilateralism.

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[41] Li Jinyan, "China and BEPS: From Norm-Taker to Norm-Shaker", *Bulletin for International Taxation* 69, no. 6/7 (2015): 355–70.

[42] State Taxation Administration of the PRC, "The State Taxation Administration Releases OECD/G20 Base Erosion and Profit Shifting Project 2015 Final Report" (in Chinese), at <http://www.chinatax.gov.cn/n810219/n810724/c1836574/content.html> [18 February 2023].

[43] Wang Li, "Modernisation of China's International Taxation" (in Chinese), *International Taxation in China*, no. 5 (2016): 53.

[44] See further information about BRITACOM, at <https://www.britacom.org/jzgk/britacom/> [22 February 2024].

[45] Rasmus Corlin Christensen and Martin Hearson, "The Rise of China and Contestation in Global Tax Governance", *Asia Pacific Business Review* 28, no. 2 (2022): 178.

[46] See Belt and Road Initiative Tax Administration Corporation Mechanism (BRITACOM), at <www.britacom.org/sy/cbw/202003/P020201229614164960064.pdf> [25 February 2024].

[47] Sun, "The Two-Pillar Approach Will Open a New Chapter in Global Tax Governance" (in Chinese).

Firstly, Pillar One helps mitigate the risk of double taxation, thereby alleviating the tax burden on MNEs. Under Pillar One, specified jurisdictions[48] are obligated to eliminate double taxation caused by Amount A.[49] The extent to which a specified jurisdiction is required to eliminate double taxation, and is thus considered a relieving jurisdiction, is determined by a tiered approach.[50] Relieving jurisdictions shall provide relief from double taxation to each relief entity by making a payment, providing a credit or allowing a deduction.[51] By contrast, overlapping DSTs in different jurisdictions could lead to double taxation.[52] Moreover, these newly adopted DSTs fall outside the scope of existing bilateral tax treaties, which serve as the primary instruments to avoid or eliminate double taxation.[53]

Secondly, compared to DSTs, Pillar One can help reduce compliance costs for digital enterprises. While DSTs across different jurisdictions share some tax elements, they vary greatly in terms of tax nature, scope of application, thresholds, tax rates and other elements, significantly increasing compliance costs for digital enterprises. For instance, the United Kingdom's DST applies to social media, search engines and online marketplaces,[54] whereas Austria's DST targets only online advertising,[55] requiring in-scope enterprises to calculate taxable income differently across jurisdictions. By contrast, under Pillar One, only the coordinating entity is required to file the Amount A Tax Return and Common Documentation Package with the lead tax administration;[56] this simplifies procedures and significantly reduces compliance costs for in-scope enterprises.

Thirdly, by requiring signatory jurisdictions to remove DSTs and similar unilateral measures, Pillar One helps prevent potential trade conflicts caused by these measures. The imposition of DSTs is a zero-sum game between jurisdictions that seek to claim

[48] According to Art. 10 of the Amount A Multilateral Convention, the so-called specified jurisdictions are (i) jurisdictions in which the MNE generates at least 95 per cent of the MNE's total elimination profit (or loss); (ii) any jurisdiction where the MNE generates elimination profit (or loss) of at least 50 million euro; or (iii) any jurisdiction in which the MNE generates elimination profit (or loss) of at least 10 million euro, combined with high profitability compared to economic substance and a low effective income tax rate. In this context, "elimination profit" refers to the adjusted profit or loss attributable to a specific jurisdiction within a multinational group, calculated to prevent double taxation by accounting for only the profits linked to that jurisdiction after certain net losses are deducted.

[49] Amount A Multilateral Convention, Arts. 9–13.

[50] Ibid., Art. 11(5).

[51] Ibid., Art. 12.

[52] OECD, *BEPS Action 1 Final Report*, p. 20.

[53] Betty Andrade, "Developing Countries and the Proposed Article 12B of the UN Model: Some Known Unknowns", *International Tax Studies* 4, no. 6 (2021): 20.

[54] Finance Act 2020 (2020 c. 14) of the United Kingdom, Art. 43(2).

[55] Digital Tax Act 2020 of Austria, Art. 1.

[56] Amount A Multilateral Convention, Art. 14.

a larger share of corporate revenues as their tax base at the expense of other governments,[57] a practice which can lead to retaliatory actions from affected jurisdictions. For example, the United States initiated a Section 301 investigation into the French DST in July 2019, concluding that it unfairly burdens US commerce and thus proposing tariffs of up to 100 per cent on approximately US$2.4 billion of French goods in response.[58] The United States conducted similar investigations into other trading partners, including the EU, Brazil and India in 2020.[59] Although these disputes have not yet escalated into full trade wars, the potential risks are still noteworthy. By contrast, the Two-Pillar Solution, backed by the consensus of over 130 jurisdictions, is conducive to improving the global business environment.

Nevertheless, it is important to note a discrepancy between the Pillar One Solution and the genuine multilateralism advocated by China. According to Chinese President Xi Jinping, "Countries, big or small, strong or weak, rich or poor, are all equal members of the international community. As such, they are entitled to participate in decision-making, enjoy rights and fulfil obligations on an equal basis".[60] Despite having more than 140 members,[61] the Inclusive Framework lacks true inclusiveness and representation. Emerging markets and developing economies are still largely excluded from the decision-making process.[62] In fact, the design of the Pillar One Solution was dominated by several developed countries, particularly the United States and several EU countries, as evidenced by the fact that the main rules of the Two-Pillar Statement were based on the political agreement reached by the Group of Seven

[57] European Centre for International Political Economy (ECIPE), "The Cost of Fiscal Unilateralism: Potential Retaliation against the EU Digital Services Tax (DST)", at <https://ecipe.org/publications/the-cost-of-fiscal-unilateralism/> [13 February 2023].

[58] United States Trade Representative (USTR), "Conclusion of USTR's Investigation Under Section 301 into France's Digital Services Tax", 2 December 2019, at <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2019/december/conclusion-ustr%E2%80%99s-investigation> [15 February 2023].

[59] United States Trade Representative (USTR), "Initiation of Section 301 Investigations of Digital Services Taxes", Federal Register, vol. 85, no. 109, 5 June 2020, at <https://ustr.gov/sites/default/files/enforcement/301Investigations/DST_Initiation_Notice_June_2020.pdf> [15 February 2023].

[60] "Full Text of Xi Jinping Keynote at the World Economic Forum", 17 January 2017, China Global Television Network (CGTN), at <https://america.cgtn.com/2017/01/17/full-text-of-xi-jinping-keynote-at-the-world-economic-forum> [18 February 2023].

[61] As of December 2022, 142 members had joined the Inclusive Framework. See OECD, "Members of the Inclusive Framework on BEPS", at <https://www.oecd.org/tax/beps/inclusive-framework-on-beps-composition.pdf> [18 February 2023].

[62] The OECD/G20 Base Erosion and Profit Shifting (BEPS) Project has highlighted this shortcoming of the Inclusive Framework. See Irma Johanna Mosquera Valderrama, "Output Legitimacy Deficits and the Inclusive Framework of the OECD/G20 Base Erosion and Profit Shifting Initiative", *Bulletin for International Taxation* 72, no. 3 (2018): 164-9; Sissie Fung, "The Questionable Legitimacy of the OECD/G20 BEPS Project", *Erasmus Law Review* 10, no. 2 (2017): 86–7; Linda Brosens and Jasper Bossuyt, "Legitimacy in International Tax Law-Making: Can the OECD Remain the Guardian of Open Tax Norms?", *World Tax Journal* 12, no. 2 (2020): 361–3.

(G7)[63] in June 2021.[64] In essence, while Pillar One is currently the only existing multilateral solution that can serve as a substitute for unilateral digital levies, it is far from ideal.

Therefore, while Pillar One, as a multilateral solution, aligns aptly with China's preference for multilateralism in global tax governance, the support for multilateralism alone does not account for all factors. Despite the evident advantages of Pillar One, some jurisdictions still prefer DSTs, driven largely by their own economic interests. The following discussion, providing a detailed analysis of the alignment between Pillar One and China's economic interests, explains the reasons behind China's choice.

PILLAR ONE AND CHINA'S ECONOMIC INTERESTS

While China has not explicitly mentioned the impact of Pillar One on its economic interests, it is highly likely that economic considerations are the primary reason for China's support for it.

An Overview of China's Digital Economy

Given that China's digital economy is second only to that of the United States, it shares similar interests with the United States regarding tax issues in this sector. According to a digital economy report released by the United Nations Conference on Trade and Development (UNCTAD), China and the United States "together account for half of the world's hyperscale data centres, the highest rates of 5G adoption in the world, 94 per cent of all funding of artificial intelligence (AI) start-ups in the five years [up to 2021], 70 per cent of the world's top AI researchers, and nearly 90 per cent of the market capitalization".[65]

However, China's digital landscape differs from that of the United States. While China is home to digital giants like Tencent, Alibaba and Baidu, these companies are still in the nascent stage of global expansion; their primary focus is the domestic market. For example, in FY2022, as one of the most successful digital enterprises in China, Alibaba's overseas revenue accounted for only about 10 per cent of its domestic

[63] The G7 countries are Canada, France, Germany, Italy, Japan, the United Kingdom and the United States of America.

[64] See the full content of the G7's agreement, at <https://www.gov.uk/government/publications/g7-finance-ministers-meeting-june-2021-communique/39c6254e-0c8f-4922-8b89-e21c91b179c9> [26 October 2024].

[65] United Nations Conference on Trade and Development (UNCTAD), "Digital Economy Report 2021, Cross-Border Data Flows and Development: For Whom the Data Flow", at <https://unctad.org/publication/digital-economy-report-2021> [25 February 2023], pp. xv–xvi.

revenue.[66] Tencent and Baidu have even less overseas revenue.[67] Consequently, China's digital enterprises are far less affected by DSTs than their US counterparts are.

As a market jurisdiction, China boasts a large digital market primarily dominated by domestic companies,[68] largely due to China's stringent access regulations.[69] In contrast, the digital consumer market in many other countries is dominated by US firms. According to China's "Special Administrative Measures for Access of Foreign Investments (Negative List) (2024 Edition)", foreign investment in information transmission, software and information technology services is heavily restricted.[70]

Overall, although the digital economy is inherently global, China's digital enterprises have developed independently from other countries. This explains why its stance on digital economy tax issues is less proactive compared to those of the United States, the EU and other economies.

Impact of the Pillar One Solution on China

Impact of Amount A on China

(i) Impact on China's fiscal revenue

As a market jurisdiction, China stands to gain increased fiscal revenue from the implementation of Amount A. Under the allocation formula of the Pillar One Solution, the quantum of Amount A that a market jurisdiction can get is based on the revenue derived in this jurisdiction; jurisdictions with large consumer markets are favoured.[71] According to the 53rd Statistical Report on Internet Development in China released by the China Internet Network Information Center (CNNIC), as of December 2023, China's internet user base reached 1.092 billion people, with an internet penetration rate of 77.5 per cent.[72] With such a large consumer market, China can benefit from the revenue-based allocation key of Amount A. Data from

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[66] See the full content of the Alibaba Group FY2022 report, at <https://data.alibabagroup.com/ecms-files/886023430/190b9a46-b141-4e23-92d8-2828ca23e1b6.pdf> [25 February 2023].

[67] François Candelon, Yang Fangqi and Daniel Wu, "Are China's Digital Companies Ready to Go Global?", Boston Consulting Group, 22 May 2019, at <https://www.bcg.com/publications/2019/china-digital-companies-ready-go-global> [25 February 2023].

[68] Christensen and Hearson, "The Rise of China and Contestation in Global Tax Governance", p. 174.

[69] Qiu Dongmei, "Latest Developments in the Formulation of International Rules for Taxation of Income in a Digital Economy and China's Countermeasures" (in Chinese), *Taxation Research*, no. 10 (2020): 67.

[70] For instance, according to this Negative List, foreign investment in internet-based news services, online publishing services, online audio-visual programme services, internet-based cultural operations (except for music), and public-oriented internet-based information dissemination services (except for contents in the abovementioned services that are opened up under China's WTO commitments) is prohibited.

[71] Reuven Avi-Yonah, "International Taxation, Globalization, and the Economic Digital Divide", *Journal of International Economic Law* 26, no. 1 (2023): 8

[72] The State Council of the PRC, "The Number of China's Internet Users Has Reached 1.092 Billion People" (in Chinese), at <https://www.gov.cn/yaowen/liebiao/202403/content_6940952.htm> [25 February 2024].

the EU Tax Observatory indicates that China's estimated net gain from Amount A is projected to be 3.2 billion euro, second only to the United States (7.7 billion euro).[73] Furthermore, China currently does not levy a DST and would not experience revenue loss from abolishing it.

(ii) Impact on China's multinational enterprises

As discussed earlier, the overlap of DSTs across jurisdictions risks double taxation and significantly increases compliance costs for enterprises. By replacing DSTs, Amount A is more advantageous for China's MNEs.

As the implementation of Amount A and DSTs both involve adding new tax measures outside the existing tax system, the scope of their application is a key factor in assessing their impact on MNEs. Due to the high threshold of Amount A, only a few China-headquartered MNEs will be subject to it.[74] According to the Oxford University Centre for Business Taxation, Amount A primarily affects US-headquartered enterprises, with those headquartered in China accounting for only around 9.5 per cent of the total Amount A.[75] The EU Tax Observatory predicts that 13 China's enterprises will be affected by Amount A, accounting for about 19 per cent of the in-scope enterprises (69 enterprises in total).[76] Another study by Chinese scholars estimates that around 21 of China's enterprises will be impacted by Pillar One.[77] By contrast, since DSTs have lower thresholds, more of China's enterprises could be affected. For example, Austria, France and Italy have set a global revenue threshold of 750 million euro for DSTs, whereas Portugal and Kenya have no global revenue threshold at all.[78] Consequently, as Amount A has a narrower scope of application, it is more advantageous for China's MNEs.

Looking ahead, the benefits of Pillar One for China's enterprises will become more apparent as they expand overseas. Although China's digital enterprises currently have limited overseas investment, global expansion has been on their agenda since a saturation point of domestic internet users is nearly reached, and domestic competition

[73] Mona Barake and Elvin Le Pouhaër, "Tax Revenue from Pillar One Amount A: Country-by-Country Estimates", at <https://shs.hal.science/halshs-04039288/document> [15 April 2024].

[74] Zhu Qing and Bai Xueyuan, "OECD Two-Pillar International Tax Reform Solution: Transposition and Response" (in Chinese), *International Taxation in China*, no. 7 (2023): 8.

[75] Martin Simmler and Michael P. Devereux, "Who will Pay Amount A?", at <https://www.econpol.eu/sites/default/files/2021-07/EconPol_Policy_Brief_36_Who_Will_Pay_Amount_A_0.pdf> [15 April 2024].

[76] Barake and Le Pouhaër, "Tax Revenue from Pillar One Amount A: Country-by-Country Estimates".

[77] Shi Xianjin, "Which Sectors of Chinese Multinational Enterprises will be Most Affected by the OECD Two-Pillar Solution?" (in Chinese), at <https://www.chinatradenews.com.cn/epaper/content/2021-10/21/content_75010.htm> [15 April 2024].

[78] Quentin Parrinello, Mona Barake and Elvin Le Pouhaër, "The Long Road to Pillar One Implementation: Impact of Global Minimum Thresholds for Key Countries on the Effective Implementation of the Reform", at <https://www.taxobservatory.eu/www-site/uploads/2023/07/EUTO_Note_The-Long-Road-to-Pillar-One-Implementation_20230712.pdf> [15 April 2024].

is intense.[79] Interviews with 150 executives at China's digital companies showed that nearly 60 per cent regarded international expansion as a priority equal to or even more important than domestic expansion.[80]

Therefore, as it alleviates the burdens of unilateral measures, such as DSTs, on digital enterprises during overseas operations, Pillar One is beneficial for China's MNEs, particularly in the long term. China currently encourages enterprises to "go global"; hence, a solution that supports their overseas expansion is highly preferred.

(iii) Impact on China's administrative costs

While Amount A can boost China's fiscal revenue and reduce the tax burden and compliance costs for its enterprises, the complexity of the Amount A rules is anticipated to raise the administrative costs for China's tax authorities. The Amount A Multilateral Convention, released in October 2023, comprises 53 articles and nine annexes in over 200 pages, exceeding the length of existing bilateral and multilateral tax treaties.[81]

The involvement of numerous jurisdictions in allocating Amount A will inevitably increase the complexity of eliminating double taxation. According to the Amount A Multilateral Convention, "specified jurisdictions" responsible for eliminating double taxation are those that receive a substantial portion of nexus-based taxing rights.[82] As a jurisdiction in which some MNEs are headquartered, China's tax authorities will bear the obligation to eliminate double taxation for these companies.

Furthermore, the intricate and time-sensitive tax certainty procedures related to Amount A will pose significant challenges to the capacity and resources of tax authorities.[83] China's vast consumer market has attracted a large number of multinational corporations and this implies China's involvement in a considerable number of tax certainty procedures, thereby substantially increasing administrative costs for tax authorities.[84] Specifically, in tax certainty procedures involving China-

[79] Office of the Central Cyberspace Affairs Commission of the PRC, "The Globalisation of Enterprises under the Wave" (in Chinese), at <https://www.cac.gov.cn/2016-09/13/c_1119554057.htm?from=timeline> [15 April 2024].

[80] Candelon, Yang and Wu, "Are China's Digital Companies Ready to Go Global?".

[81] For example, bilateral tax treaties for the avoidance of double taxation and for the prevention of fiscal evasion with respect to taxes on income generally consist of around 30 articles. As for existing multilateral conventions, while the Convention on Mutual Administrative Assistance in Tax Matters contains 32 articles, the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting comprises 39 articles.

[82] Jost Heckemeyer et al., "The Digital Economy, Global Tax Reforms and Developing Countries—An Evaluation of Pillar I and Art. 12B UN Model", ZEW Discussion Papers, No. 24-022, ZEW-Leibniz Centre for European Economic Research, at <https://www.econstor.eu/bitstream/10419/290402/1/1886815887.pdf> [15 April 2024].

[83] Zhang Zeping and Dai Jing, "On the Dispute Prevention and Resolution of Pillar One from the Perspective of Tax Certainty" (in Chinese), *International Taxation in China*, no. 10 (2021): 53.

[84] Sun Yi, "Research on the Tax Dispute Prevention and Resolution Mechanism of the OECD Pillar One Solution" (in Chinese), *International Taxation in China*, no. 4 (2022): 47.

headquartered companies, China's tax authorities may act as the lead tax administration. This role requires them to undertake functions such as reviewing the Amount A Tax Returns and Common Documentation Packages submitted by in-scope MNEs, as well as exchanging information with the competent authorities of all listed or affected parties.[85]

Nevertheless, considering the positive impact of Amount A on China's fiscal revenue and its MNEs, Amount A is still more beneficial than detrimental for China. Additionally, given the centralised nature of Amount A administration and the formulaic aspects of many of its provisions, the administrative costs may be limited primarily to initial implementation and are expected to decrease in subsequent years.[86]

Impact of Amount B on China

Currently, research on the impact of Amount B on China is limited. However, the broader scope of Amount B's application makes the impact on China noteworthy.

Transfer pricing rules are inherently complex, often requiring intricate case-by-case analysis that can be challenging due to the uniqueness of certain transactions.[87] Such complexity can lead to significant compliance burdens, assessment difficulties, increased profit shifting and high entry barriers for international taxation.[88] Moreover, transfer pricing disputes constitute a primary type of cross-border tax dispute because the transfer pricing rules are one of the most significant and complex fields within international tax legislation. In 2022, 16 out of 39 mutual agreement procedure cases initiated in mainland China were related to transfer pricing.[89] By providing a straightforward approach to routine transactions, Amount B will not only reduce compliance costs for MNEs but also benefit tax authorities by reducing administrative burdens and associated costs.[90]

[85] Amount A Multilateral Convention, Art. 14.

[86] Heckemeyer et al., "The Digital Economy, Global Tax Reforms and Developing Countries—An Evaluation of Pillar I and Art. 12B UN Model".

[87] Svetislav Kostić and Aitor Navarro, "Pillar One and Mobility—A Truly Global Solution?", *Intertax* 51, no. 12 (2023): 847.

[88] Aitor Navarro, "Simplification in Transfer Pricing: A Plea for the Enactment of Rebuttable Predetermined Margins and Methods within Developing Countries", *Florida Tax Review* 22, no. 3 (2018): 755.

[89] OECD, "Mutual Agreement Procedure Statistics per Jurisdiction for 2022", at <https://www.oecd.org/tax/dispute/mutual-agreement-procedure-statistics-2022-per-jurisdiction.htm#tpcases> [29 April 2024].

[90] Sharvari Kale and Shi Min, "Maximizing Amount B of the OECD's Pillar One for Developing Countries", *Bulletin for International Taxation* 78, no. 1 (2024): 14–7.

Amount B will apply solely to buy-sell marketing and distribution transactions, as well as sales agency and commissionaire transactions. While some scholars criticise its limited scope,[91] reports from low-capacity jurisdictions indicate that transfer pricing disputes related to distribution activities constitute a significant portion (between 30 and 70 per cent) of all transfer pricing disputes,[92] thereby justifying its scope. Since the launch of the BRI, many PRC enterprises have expanded their operations in low-capacity jurisdictions along the Belt and Road, which are expected to benefit from Amount B. In 2023, China's trade with Belt and Road jurisdictions increased to 46.6 per cent, with imports and exports to Latin America and Africa growing by 6.8 per cent and 7.1 per cent, respectively.[93]

Nevertheless, the application of Amount B may also lead to new tax disputes. These may arise regarding whether a transaction falls within the scope of Amount B.[94] Additionally, since the implementation of Amount B is optional for Inclusive Framework members, its application in one jurisdiction may not necessarily be recognised by others.[95] According to the latest report on Amount B, such tax disputes will be resolved through mutual agreement procedures provided in bilateral tax treaties.[96] China's extensive network of such treaties will facilitate the resolution of Amount B-related tax disputes.[97]

Furthermore, the pricing matrix for marketing and distribution activities under Amount B is acceptable for China. Since many of China's export products are positioned in the mid- to low segments of the value chain with relatively lower pre-tax profit levels, fixing the return under Amount B at two to four per cent of sales revenue is reasonable for China's export enterprises.[98] According to the current Amount B rules, based on three industry groups and five categories of operating asset and expenses intensities (yielding 15 potential operating margins), arm's length results range from 1.50 to 5.50 per cent of return on sales.[99]

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[91] Zucchetti, Lishi and Erb, "Pillar One, Amount B: Current Implications and Future Perspectives".

[92] OECD, "Pillar One Amount B in a Nutshell", at <https://www.oecd.org/tax/beps/pillar-one-amount-b-in-a-nutshell.pdf> [9 April 2024].

[93] The State Council of the PRC, "China's Foreign Trade Has a Better Structure and More Power" (in Chinese), 21 January 2024, at <https://www.gov.cn/yaowen/liebiao/202401/content_6927300.htm> [9 April 2024].

[94] Vikram Chand, Alessandro Turina and Louis Ballivet, "Profit Allocation within MNEs in Light of the Ongoing Digital Debate on Pillar I—A '2020 Compromise'?: From Using a Facts and Circumstances Analysis Or Allocation Keys to Predetermined Allocation Approaches", *World Tax Journal* 12, no. 3 (2020): 615.

[95] Kostić and Navarro, "Pillar One and Mobility—A Truly Global Solution?", p. 848.

[96] OECD, *Pillar One—Amount B: Inclusive Framework on BEPS*, p. 35.

[97] As of May 2024, China had signed a total of 105 bilateral tax treaties that are currently in force with other jurisdictions and that are aimed at avoiding double taxation and preventing fiscal evasion with respect to income taxes. See the State Taxation Administration of the PRC, "Tax Treaties" (in Chinese), at <https://www.chinatax.gov.cn/n810341/n810770/index.html> [9 April 2024].

[98] Jiang Yuesheng and Jiang Yiran, "Process, Crucial Point and Countermeasures: An Analysis of the OECD's Pillar One Proposal (Part 3)" (in Chinese), *International Taxation in China*, no. 2 (2021): 44.

[99] OECD, *Pillar One—Amount B: Inclusive Framework on BEPS*, pp. 26–7.

Overall, Amount B, in lowering administrative costs for China's tax authorities and enhancing tax certainty for enterprises, aligns with China's tax interests.

FUTURE OUTLOOK

Due to the uncertainty surrounding the implementation of Pillar One, this section investigates two questions: first, how China will implement this solution if it is successfully executed; and second, what alternative measures China may take if it fails.

Implementation Strategy for Pillar One in China

Due to the significant differences in implementation methods and interactions with traditional tax rules between Amount A and Amount B, the implementation strategies in China also differ.

Implementation strategy for Amount A

The effective application of Amount A requires both a multilateral convention and domestic legislation for its implementation.[100]

China's Constitution is largely silent on the application of international treaties and their relationship with domestic law.[101] Instead, issues are addressed on a case-by-case basis. Drawing upon the practical experience of applying the Multilateral Convention on Mutual Administrative Assistance in Tax Matters in China, the Amount A Multilateral Convention would first need approval from the Standing Committee of the National People's Congress. Following this, the State Taxation Administration would issue corresponding implementation announcements to declare its direct applicability within China.[102] In terms of the hierarchy of tax treaties, the provisions of treaties or agreements will take precedence over the Enterprise Income Tax Law and the Tax Collection and Administration Law of the PRC, in case of discrepancies.[103]

Due to significant differences between the Amount A rules and China's tax law system, amendments or supplements to relevant domestic laws are necessary. The rules for determining the tax jurisdiction, identifying taxpayers and ascertaining the source of income of Amount A differ significantly from those of the Enterprise Income Tax Law, requiring revisions to it.[104] Additionally, China needs to establish a separate collection and administration mechanism for Amount A. In China, the collection of

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[100] Li, "The Global Tax Agreement: Some Truths and Legal Realities".

[101] Wan Exiang, *Research on the Relationship Between International Law and Domestic Law: A Perspective on the Domestic Application of International Law* (in Chinese) (Beijing: Peking University Press, 2011), p. 4.

[102] Zhu Yansheng, "An Analysis on the Connection Method between the Pillar One Plan and the Domestic Tax Law in China" (in Chinese), *Taxation Research*, no. 7 (2023): 86.

[103] Enterprise Income Tax Law of the PRC, Art. 58; Tax Collection and Administration Law of the PRC, Art. 91.

[104] Zhu and Bai, "OECD Two-Pillar International Tax Reform Solution", p. 9.

enterprise income tax is managed by local tax authorities, with 40 per cent of the revenue retained by the local governments and the remaining 60 per cent remitted to the central government.[105] However, Amount A may involve MNEs without a physical presence in China and thus may fall outside the jurisdiction of any specific local tax authority. Furthermore, since Amount A will be attributed to China as a whole, allowing a specific local tax authority to collect and share the tax revenue could lead to unfairness among different regions.[106]

Implementation strategy for Amount B

By contrast, implementing the Amount B rules is relatively straightforward as it represents a simplification of traditional transfer pricing rules. China's existing transfer pricing rules are primarily stipulated in departmental regulations, such as the "Implementation Measures for Special Tax Adjustment (Trial)" and the "Management Measures for Special Tax Investigation and Adjustment and Mutual Agreement Procedures", issued by the State Taxation Administration. The implementation of Amount B will require only adding relevant provisions to these regulations.

Alternative Strategies if Pillar One Fails

The uncertain prospects surrounding the implementation of Amount A highlight the need to consider contingency plans and alternative strategies should it not enter into force as anticipated.

For the Amount A Multilateral Convention to be implemented, ratification, acceptance or approval by at least 30 jurisdictions is required, including the residence jurisdictions of at least 60 per cent of the ultimate parent entities of in-scope MNEs.[107] Notably, the United States holds significant sway in this process, accounting for 81 per cent of the required points according to Annex I of the Amount A Multilateral Convention. According to the US Constitution, the US President "shall have Power, by and with the Advice and Consent of the Senate, to make Treaties, provided two-thirds of the Senators present concur".[108] Given opposition from the Republican party, many commentators deem US ratification unlikely.[109]

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[105] The State Council of the PRC, "Notice of the State Council on Clarifying the Central and Local Income Tax Revenue Sharing Ratio" (in Chinese), at <www.gov.cn/gongbao/content/2004/content_62796.htm> [29 April 2024].

[106] Zhang Mujun, "User Value and the Logic of Digital Tax Legislation" (in Chinese), *Chinese Journal of Law* 44, no. 4 (2022): 128.

[107] Amount A Multilateral Convention, Art. 48.

[108] See United States Senate, "About Treaties", at <https://www.senate.gov/about/powers-procedures/treaties.htm> [13 April 2024].

[109] Daniel Bunn, "Five Takeaways from the New Pillar One Documents", at <https://taxfoundation.org/blog/pillar-one-us-treasury-consultation/> [20 April 2024]; Reuven S. Avi-Yonah, "After Pillar One", at <https://repository.law.umich.edu/law_econ_current/247> [13 April 2024]; Li, "The Global Tax Agreement".

Nevertheless, US lawmakers appear to be more concerned about the adverse impact of DSTs on American companies. On 10 October 2023, Bipartisan Finance Committee Leaders urged the United States Trade Representative (USTR) to make clear that the United States will forcefully defend American companies against discriminatory taxes being proposed by Canada.[110] Given that Pillar One represents a potential path to eliminating the "discriminatory and distortionary DSTs that some countries have implemented in recent years",[111] it is challenging to predict the stance that the United States will adopt. Former Director of the OECD Centre for Tax Policy and Administration Pascal Saint-Amans indicated that governments, including the United States, will eventually implement Pillar One when they recognise that alternatives such as DSTs are even more detrimental.[112]

Beyond the United States, scepticism about the implementation of Pillar One persists in some other jurisdictions, particularly those already levying DSTs. While Pillar One promises additional tax revenue for jurisdictions, those currently deriving substantial revenue from DSTs may face revenue declines due to their removal.[113] Furthermore, concerns have been raised among several developing countries regarding the complexity associated with the implementation of Pillar One.[114]

Therefore, China will need to consider contingency plans and alternative strategies if Pillar One fails to be implemented.

Whether China needs a digital service tax

It is anticipated that if the Amount A Multilateral Convention fails to be implemented, more jurisdictions will start imposing DSTs. For example, some finance ministers of

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[110] United States Senate Committee on Finance, "Bipartisan Finance Committee Leaders: USTR Must Tell Canada the US Will Fight Discriminatory Digital Services Taxes on American Companies", 10 October 2023, at <https://www.finance.senate.gov/chairmans-news/bipartisan-finance-committee-leaders-ustr-must-tell-canada-the-us-will-fight-discriminatory-digital-services-taxes-on-american-companies> [13 April 2024].

[111] Daniel Bunn, "Response to the United States Treasury Department's Request for Public Input on Pillar One", at <https://taxfoundation.org/wp-content/uploads/2023/12/Pillar_One_Reply_DVC.pdf> [12 April 2024].

[112] Todd Buell, "Pillar 1 Will Be Law One Day, Departing Saint-Amans Says", 7 September 2022, at <https://www.law360.com/tax-authority/articles/1527939/pillar-1-will-be-law-one-day-departing-saint-amans-says> [12 April 2024].

[113] Oluwakemi Gbadebo, "The Global Two-Pillar Solution: Why Nigeria Said No", Taxnotes, 27 March 2023, at <https://www.taxnotes.com/tax-notes-international/base-erosion-and-profit-shifting-beps/global-two-pillar-solution-why-nigeria-said-no/2023/03/27/7fzn8> [12 April 2024]; Tayo Ogungbenro and Israel Ajayi, "The OECD Two-Pillar Solution: a Perspective on Nigeria's Position", Bloomberg Tax, 23 February 2023, at <https://news.bloombergtax.com/daily-tax-report-international/the-oecd-two-pillar-solution-a-perspective-on-nigerias-position> [12 April 2024].

[114] Melanie Dewi Astuti, "Three Approaches to Taxing Income from the Digital Economy—Which Is the Best for Developing Countries?", *Bulletin for International Taxation* 74, no. 12 (2020): 728; Richard Collier, Michael P. Devereux and John Vella, "Comparing Proposals to Tax Some Profit in the Market Country", *World Tax Journal* 13, no. 3 (2021): 431–2.

EU member states have indicated that if the Inclusive Framework fails to implement Pillar One, the EU may have to reconsider introducing an EU digital levy to fill its revenue gap.[115]

However, imposing a DST would not be advisable for China. The country's digital consumer market is dominated by domestic companies, which would become the primary targets if a DST were introduced.[116] While imposing an additional tax on local digital enterprises may boost short-term revenue, it would inevitably hinder the growth of China's digital businesses and act counter to its digital development strategy.[117] In recent years, China had prioritised the development of the digital economy as a key component of the Made in China 2025 Initiative.[118] Therefore, China lacks the motivation to introduce a DST.

Some scholars have advocated a DST in China due to perceived low tax rates on digital enterprises affecting tax fairness[119] and competition neutrality.[120] These arguments however are not sufficient to justify its introduction.

Firstly, there is no significant disparity in the tax burden between China's digital enterprises and enterprises in other sectors. According to a report published by the Research Institute of Finance and Taxation at Renmin University of China, the average total tax burden for the information transmission, software and information technology services industry between 2008 and 2017 was 17.46 per cent, which is comparable to other sectors such as transportation, warehousing and postal services (17.98 per cent), with only about a five per cent deviation from the median total tax burden across all industries (22.64 per cent).[121] A study comparing the tax burden of China's internet companies with that of automotive manufacturing companies from 2019 to 2021 showed that the effective tax rate on the former was approximately 76.1 per cent that

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[115] "EU to Revive Digital Levy Plan If Global Tax Deal Fails, Warns Minister", *Financial Times*, 8 November 2022, at <https://www.ft.com/content/7eabcd39-ef14-43f3-addb-4fd07bde8af7> [12 April 2024].

[116] Chen Jingxian and Zhou Quanlin, "Digital Services Tax: Contents, Challenges and China's Responses" (in Chinese), *Contemporary Finance & Economics*, no. 4 (2021): 34.

[117] Huang Jianxiong and Cui Jun, "Current Situation of Digital Service Tax and China's Response" (in Chinese), *Taxation and Economy*, no. 2 (2020): 87–8.

[118] See the full content of the Made in China 2025 Initiative, at <http://www.gov.cn/zhengce/content/2015-05/19/content_9784.htm> [1 March 2023].

[119] Xue Yusong, "On the Justification of the Digital Services Tax as a Permanent Tax" (in Chinese), *Sub National Fiscal Research*, no. 2 (2022): 66; Ren Wanli, "The Functional Innovation of Digital Tax: A Perspective of Tax Fairness" (in Chinese), *Jinan Journal (Philosophy & Social Sciences)* 25, no. 5 (2023): 52–6.

[120] Yu Zhen and Shen Yiran, "The International Controversy of Digital Tax on Global Economic Governance Implications and China's Response" (in Chinese), *Tianjin Social Sciences*, no. 3 (2022): 89; Hou Zhuo, "Legitimacy and Thought of Levying Digital Service Tax: Investigation Based on the Perspective of Internet Antitrust" (in Chinese), *Jianghai Academic Journal*, no. 2 (2022): 160.

[121] Lü Bingyang, "Report on the Tax Burden of Chinese Enterprises: Estimations Based on Data from Listed Companies" (in Chinese), at <http://ipft.ruc.edu.cn/docs//2022-03/6f627af8617e4f24a9fe858aeb20dc94.pdf> [6 April 2024].

on the latter.[122] Furthermore, digital enterprises often invest heavily in technology research and user network expansion during their early stages, thereby leading to prolonged periods of losses and consequently lowering their average tax burden. For instance, major digital enterprises in China like JD.com, Meituan and Pinduoduo all experienced years of losses.[123] Therefore, while there are differences in the tax burden between digital enterprises and traditional sectors, they are not significant.

Secondly, the disparity in the tax burden between digital enterprises and traditional sectors in China can be attributed in part to tax incentives. Under Article 28(2) of China's Enterprise Income Tax Law, high-tech enterprises targeted for support by the country are subject to a reduced corporate income tax rate of 15 per cent. Additionally, both central and local governments have offered various tax incentives, such as accelerated depreciation, additional deductions, reductions and exemptions, to encourage innovation.[124] Given that digital enterprises tend to engage in extensive R&D activities, they are more likely to benefit from these tax incentives compared to other industries, thereby further reducing their tax burden.[125] Imposing a DST would partially negate the effects of these tax incentives, complicating the tax system.

Furthermore, a DST is susceptible to being passed on to downstream retailers or consumers, making it difficult to achieve tax fairness and fulfil antitrust objectives. As an indirect tax, the burden of a DST can easily be transferred through price increases.[126] For instance, a study by Deloitte and Taj predicted that only five per cent of the DST burden would fall on the large internet companies that the taxation aims to target, while approximately 55 per cent would be borne by consumers and 40 per cent by businesses that use digital platforms.[127] For example, Amazon announced an increase in its seller's fees in the United Kingdom by two per cent to pass on the additional tax burden of the United Kingdom's DST.[128] Therefore, a DST is not an

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[122] Wu Dongwei, "The Current Governance of Tax in the Internet Industry and its Adaptation Paths" (in Chinese), *China Business and Market* 37, no. 7 (2023): 117.

[123] JD.com (founded in 1998) and Meituan (founded in 2010) reported their first profitable years in the 2016 and 2019 fiscal years, respectively, while Pinduoduo (founded in 2015) reported its first profitable quarter in the third quarter of 2020.

[124] Wang Mingze, "Study on the Legal System of Taxation of Digital Services" (in Chinese), *Taxation and Economy*, no. 4 (2023): 10–2.

[125] Marcel Olbert, Christoph Spengel and Ann-Catherin Werner, "Measuring and Interpreting Countries' Tax Attractiveness for Investments in Digital Business Models", *Intertax* 47, no. 2 (2019): 151.

[126] Pasquale Pistone and Andreas Ullmann, "Digital Taxes and Article 2 OECD Model Convention 2017", in *Taxes Covered under Article 2 of the OECD Model: The Scope of Tax Treaties in a Dynamic Global Environment of Newly Created Taxes* (Amsterdam: IBFD [International Bureau of Fiscal Documentation], 2021), sec. 8.2.2.

[127] Deloitte and Taj, "The French Digital Service Tax: An Economic Impact Assessment", 22 March 2019, at <https://blog.avocats.deloitte.fr/content/uploads/2020/03/dst-impact-assessment-march-2019.pdf> [2 March 2023].

[128] Daniel Bunn, "Who will Ultimately Pay the Digital Services Tax in the UK? Amazon Passes the Cost Along to Sellers", Tax Foundation, 4 August 2020, at <https://taxfoundation.org/who-will-ultimately-pay-the-uk-digital-services-tax-amazon-passes-the-cost-along-to-sellers/> [2 March 2023].

ideal means to promote tax fairness between digital and traditional enterprises or to address monopoly issues in the digital sector.

In conclusion, the introduction of a DST would result in more losses than benefits for China.

Measures to eliminate double taxation for China's multinational enterprises

In a world with widespread DSTs, China's MNEs may suffer from double taxation, further hindering their overseas expansion. If this situation arises, China will need to consider measures to eliminate double taxation for MNEs.

One potential solution could involve bringing these unilateral digital taxes within the scope of Article 12B of the UN Model Tax Convention, which, together with Article 23 of the bilateral treaties, could help mitigate the double taxation.[129] Moreover, Article 12B is easier to implement than Pillar One and may be more acceptable to developing countries with limited resources.[130] However, this would require China's tax authorities to provide tax credits for in-scope MNEs, leading to a loss of tax revenue for China. Therefore, the decision hinges on whether China prioritises maintaining tax revenue or reducing the tax burden on its digital enterprises.

Moreover, it would be unwise to emulate the US approach of threatening retaliation against countries that impose these unilateral measures. China's economic development heavily relies on exports and retaliatory measures could disrupt trade relations with other countries, ultimately impacting all parties involved.[131] Instead of introducing new trade barriers, China should prioritise policies that foster long-term growth and promote win-win cooperation.

Participation in future multilateral negotiations in the UN

Due to the global expansion of the digital economy, a multilateral approach to addressing digital tax challenges is essential. If Pillar One fails to be implemented, the international community will need to engage in new multilateral discussions on this issue.

On 22 November 2023, the Second Committee of the UN General Assembly adopted a resolution introducing a framework convention on international tax cooperation, emphasising the importance of considering the needs, priorities and capacities of all countries, particularly developing countries.[132] The taxation of the

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[129] Andrade, "Developing Countries and the Proposed Article 12B of the UN Model: Some Known Unknowns", p. 20.

[130] Ibid., p. 22.

[131] The US–China trade war is a typical example. See Eric Yong Joong Lee, "Is America Back to Multilateralism? A Prospect of President Biden's China Trade Policy", *China and WTO Review* 7, no. 1 (2021): 120.

[132] United Nations, Resolution A/C.2/78/L.18/REV.1, 15 November 2023, at <https://undocs.org/Home/Mobile?FinalSymbol=A%2FC.2%2F78%2FL.18%2FRev.1&Language=E&DeviceType=Desktop&LangRequested=False> [10 April 2024].

digitalised economy will be included in this convention.[133] In the future, the UN, with its broader membership compared to the OECD, has the potential to be a more inclusive platform for discussions of long-term international tax reform related to the digitalisation of the economy. Furthermore, the UN provides a platform more conducive for China to demonstrate leadership. The OECD-led international tax reforms are predominantly influenced by the United States and the EU, but they are less likely to dominate proceedings within the UN tax treaty project.[134]

CONCLUSION

The ongoing debates surrounding the taxation of the digital economy have focused predominantly on the transatlantic struggle over the taxation of American digital giants. Despite China's status as the second-largest digital power, research on its response to addressing tax challenges in the digital economy has been largely overlooked both because China's digital enterprises are currently in the nascent stage of global expansion and because China has taken a relatively passive stance on this issue. This article aims to fill the research gap by providing a comprehensive analysis of China's current position and future steps.

This article explains China's support for Pillar One. Based on China's official statements on Pillar One and past practices, the article proposes that the multilateral nature of Pillar One aligns with China's international tax strategy. While this alignment partially explains China's stance, economic considerations play a more crucial role. Compared to DSTs, Amount A is expected to increase China's fiscal revenue and reduce the tax burden and compliance costs for China's MNEs, despite potentially increasing administrative costs for China's tax authorities. Amount B offers a straightforward approach to applying the arm's length principle, which can lower administrative costs for China's tax authorities and enhance tax certainty for enterprises.

Given China's political support for Pillar One, this article further predicts China's legal strategy for its implementation. While the implementation of Amount A will require amendments or supplements to the Enterprise Income Tax Law and the Tax Collection and Administration Law, implementing Amount B is relatively straightforward and would involve only modifications to relevant departmental regulations. Acknowledging the possibility that the Amount A Multilateral Convention may fail to enter into force, this article also explores alternative measures China could take. It suggests that, unlike other countries, China does not need to impose a DST. Instead, China could consider providing credits to its enterprises to eliminate double taxation

[133] United Nations, "Bureau's Proposal for the Zero Draft Terms of Reference for a United Nations Framework Convention on International Tax Cooperation", 7 June 2024, at <https://financing.desa.un.org/sites/default/files/2024-06/Zero%20draft%20ToR%207%20June%202024.pdf> [27 June 2024].
[134] Yariv Brauner and Pasquale Pistone, "The BRICS and the Future of International Taxation", in *BRICS and the Emergence of International Tax Coordination* (Amsterdam: IBFD, 2015), sec. 18.3.2.2.

and actively engage in future international negotiations at the UN, where China can better leverage its influence.

Notably, as China's digital economy develops, its international tax strategy may evolve. The overseas expansion of China's digital giants will align its interests more closely with those of the United States on this issue. However, in the traditional economy, China still advocates source-based taxation, as do other emerging markets and developing economies. How China will adjust its actions to protect its tax interests remains to be seen.

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Interregional Investment Networks and Innovation Growth: The "Buzz-and-pipeline" Perspective

LI Yuanxi

Innovation is the primary driver of modern regional development, and promoting regional innovation growth is important in raising the level of such development. This article examines the role of investment networks in innovation growth by analysing a panel data set of 214 cities in China within 19 urban agglomerations (Appendix I) over the 2005–19 period. This article studies the impact of cross-border capital flows on innovation from a regional perspective rather than a national one, integrating the "buzz-and-pipeline" model into the study of interregional investment networks and innovation. The empirical analysis shows that investment networks significantly promote regional innovation through both the local buzz and global pipeline effects. Further analysis categorises urban agglomerations and cities into four types: noninteractive, outward, inward and networked. The findings indicate that the impact of investment networks on innovation growth varies across these different urban agglomeration and city types.

INTRODUCTION

Innovation is the core driver in the era of knowledge economies. Today, economic development and social progress are driven by innovation growth, so that regions with high levels of innovation are increasingly competitive.[1] Research has investigated regional innovation growth through a variety of perspectives. Empirical and theoretical studies have documented factors such as R&D (research and development),[2]

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[1] Roberta Capello, "Towards a New Conceptualization of Innovation in Space: Territorial Patterns of Innovation", *International Journal of Urban and Regional Research* 41, no. 6 (2017): 976–96.

[2] Luc Anselin, Attila Varga and Zoltan Acs, "Local Geographic Spillovers between University Research and High Technology Innovations", *Journal of Urban Economics* 42, no. 3 (1997): 422–48; Mikel Buesa, Joost Heijs and Thomas Baumert, "The Determinants of Regional Innovation in Europe: A Combined Factorial and Regression Knowledge Production Function Approach", *Research Policy* 39, no. 6 (2010): 722–35; Mario A. Maggioni, Teodora Erika Uberti and Stefano Usai, "Treating Patents as Relational Data: Knowledge Transfers and Spillovers across Italian Provinces", *Industry and Innovation* 18, no. 1 (2011): 39–67.

FDI (foreign direct investment),[3] university development[4] and transportation infrastructure.[5]

In the context of trade globalisation, the impact of cross-border capital flows on innovation has garnered significant attention. Research has examined the relationship between foreign direct investment (FDI), outward foreign direct investment (OFDI) and national innovation development. While international investment contributes to innovation development, it plays different roles in the innovation development of home and host countries.[6] Heterogeneity studies have focused on the varying impacts with regard to corporate innovation of international investment on innovation across cities with different characteristics within a country,[7] in various industries,[8] and in emerging economies.[9] These impacts are often explained through mechanisms such as demonstration-imitation effects, competence effects and labour mobility.[10] Despite extensive research on the impact of international investment on regional innovation, such investment is not the primary source of capital that regions receive. In fact, investment flows often occur between regions within a country rather than between countries. Therefore, it is worthwhile to concentrate on regions and investigate whether interregional investment also promotes regional innovation.

Interregional investment forms networks analogous to capital flows that diminish the importance of geographical distance and encourage flexible interactions between

[3] Shireen AlAzzawi, "Innovation, Productivity and Foreign Direct Investment-induced R&D Spillovers", *The Journal of International Trade & Economic Development* 21, no. 5 (2012): 615–53; Andrea Ascani, Pierre-Alexandre Balland and Andrea Morrison, "Heterogeneous Foreign Direct Investment and Local Innovation in Italian Provinces", *Structural Change and Economic Dynamics* 53 (2020): 388–401.

[4] Anselin, Varga and Acs, "Local Geographic Spillovers between University Research and High Technology Innovations"; Roderik Ponds, Frank van Oort and Koen Frenken, "Innovation, Spillovers and University–Industry Collaboration: An Extended Knowledge Production Function Approach", *Journal of Economic Geography* 10, no. 2 (2009): 231–55.

[5] Wang Jiating and Cai Siyuan, "The Construction of High-speed Railway and Urban Innovation Capacity: Based on the Perspective of Knowledge Spillover", *China Economic Review* 63 (2020): 101539.

[6] AlAzzawi, "Innovation, Productivity and Foreign Direct Investment-induced R&D Spillovers".

[7] Ning Lutao, Wang Fan and Li Jian, "Urban Innovation, Regional Externalities of Foreign Direct Investment and Industrial Agglomeration: Evidence from Chinese Cities", *Research Policy* 45, no. 4 (2016): 830–43.

[8] Ascani, Balland and Morrison, "Heterogeneous Foreign Direct Investment and Local Innovation in Italian Provinces".

[9] Panagiotis Piperopoulos, Wu Jie and Wang Chengqi, "Outward FDI, Location Choices and Innovation Performance of Emerging Market Enterprises", *Research Policy* 47, no. 1 (2018): 232–40.

[10] Magnus Blomström and Ari Kokko, "Multinational Corporations and Spillovers", *Journal of Economic Surveys* 12, no. 3 (1998): 247–77; Andrea Fosfuri, Massimo Motta and Thomas Rønde, "Foreign Direct Investment and Spillovers through Workers' Mobility", *Journal of International Economics* 53, no. 1 (2001): 205–22.

distant areas.[11] Storper and Venables[12] proposed the "buzz" concept: the information and communication ecosystem created by face-to-face interactions, "co-presence, and co-location of people and firms" within the same industry and region, fostering information updates, learning processes and shared knowledge, technologies and cultural traditions. As new knowledge is not only formed through local interactions, Owen-Smith and Powell[13] proposed the "pipeline" concept: the interactions between different regions. Bathelt, Malmberg and Maskell[14] combined these concepts and developed the "buzz-and-pipeline" model to explain the impact of network externalities on innovation growth. They explored the intra- and interregional effects on innovation of knowledge networks and discussed the positive impact of local buzz and global pipelines represented by these networks, their differences and their complementary relationship.[15] However, few studies have examined the intra- and interregional impacts of other types of networked capital on innovation growth. Therefore, based on the "buzz-and-pipeline" perspective, this article assesses whether intra- and interregional investment networks play a different role to that of knowledge networks in innovation growth.

This article hopes to contribute to research on the topic in three aspects. First, while most research explores the impact of investment flows on innovation from an international perspective, this study narrows the focus to an interregional perspective. The study also clarifies the impact of interregional investment networks on innovation and compares the differing impacts of investment networks within and between regions. To this end, the article uses panel data from prefectural and higher-level cities in China's 19 urban agglomerations. Cities within the same urban agglomeration are considered to be within a region and investment flows between them form intraregional networks, while investment flows between cities in different urban agglomerations form interregional networks. Second, using the "buzz and pipeline" concept, the article investigates whether investment networks advance innovation, taking into account the differences between intra- and interregional networks. The intraregional network leads

[11] Shi Shuai, Wong Siu Kei and Zheng Chen, "Network Capital and Urban Development: An Interurban Capital Flow Network Analysis", *Regional Studies* 56, no. 3 (2022): 1–14.

[12] Michael Storper and Anthony J. Venables, "Buzz: The Economic Force of the City", paper presented at the DRUID (Danish Research Unit for Industrial Dynamics) Summer Conference on "Industrial Dynamics of the New and Old Economy—Who is Embracing Whom?" in Copenhagen and Elsinore (2002).

[13] Jason Owen-Smith and Walter W. Powell, "Knowledge Networks in the Boston Biotechnology Community", paper presented at the Conference on "Science as an Institution and the Institutions of Science" in Siena (2002).

[14] Harald Bathelt, Anders Malmberg and Peter Maskell, "Clusters and Knowledge: Local Buzz, Global Pipelines and the Process of Knowledge Creation", *Progress in Human Geography* 28, no. 1 (2004): 31–56.

[15] Cao Zhan et al., "'Buzz-and-pipeline' Dynamics in Chinese Science: The Impact of Interurban Collaboration Linkages on Cities' Innovation Capacity", *Regional Studies* 56, no. 2 (2022): 290–306; Harald Bathelt, "Buzz-and-Pipeline Dynamics: Towards a Knowledge-Based Multiplier Model of Clusters", *Geography Compass* 1, no. 6 (2007): 1282–98.

to the local buzz effect, while the interregional network leads to the global pipeline effect. Third, the article sheds light on the typology of urban agglomerations and cities, namely the noninteractive, outward, inward and networked types. Findings have suggested that the network characteristics of such nodes affect the impacts of investment networks on innovation, with the "buzz-and-pipeline" effects differing across the various types. Fourth, considering the importance of regional innovation, this article provides policy insights for effectively guiding intra- and interregional investment to enhance the innovation capabilities of various regions.

The structure of this article is as follows. The second section reviews the literature on investment and innovation growth. Based on this literature, the article extends studies of international investment to interregional investment within a country and introduces the "buzz-and-pipeline" model. The third section presents the geographical location of the study area, methodology and data, and proposes an econometric model based on the data of China's 19 urban agglomerations covering the period from 2005 to 2019. The fourth discusses the key results of the impact of intra- and interregional investment networks on innovation, and the fifth section examines the typology of urban agglomerations and cities. The sixth section draws conclusions from the findings.

LITERATURE REVIEW AND HYPOTHESES

Interregional Investment Network and Innovation Growth

Since the late 20th century, the network-based order of spatial organisation has emerged. This network structure reveals a polycentric form of functional, economic and social relationships between regions.[16] Regions are no longer viewed as isolated actors but as interactive nodes within a network. These regions are interconnected through infrastructure such as communication and telecommunication systems, railways and highways, through non-material connections like innovation cooperation and political relationships, and through labour mobility, etc.[17] The interaction between regions creates synergies and complementarities, leading to network externalities[18] which

[16] Roberto P. Camagni and Carlo Salone, "Network Urban Structures in Northern Italy: Elements for a Theoretical Framework", *Urban Studies* 30, no. 6 (1993): 1053–64.

[17] Shi, Wong and Zheng, "Network Capital and Urban Development"; Rafael Boix and Joan Trullén, "Knowledge, Networks of Cities and Growth in Regional Urban Systems", *Papers in Regional Science* 86, no. 4 (2007): 551–74.

[18] Frank van Oort, Martijn Burger and Otto Raspe, "On the Economic Foundation of the Urban Network Paradigm: Spatial Integration, Functional Integration and Economic Complementarities within the Dutch Randstad", *Urban Studies* 47, no. 4 (2010): 725–48; Roberta Capello, "The City Network Paradigm: Measuring Urban Network Externalities", *Urban Studies* 37, no. 11 (2000): 1925–45.

significantly contribute to regional development, especially to economic and innovation growth.[19]

Investment is a crucial channel that creates networks and has an impact on regional innovation growth. However, the existing literature tends to focus more on the impact of foreign direct investment rather than on that of interregional investment within a country.[20] Compared to international investment, interregional investment is smoother. Political and natural barriers between countries often weaken communication and interaction,[21] whereas regions within a country are more open to each other. These regions are more closely connected and the flows between regions are less hindered.

First, interregional investment networks promote regional innovation growth by enhancing the flow of innovative factors. For instance, labour mobility is considered the most important channel of knowledge spillovers.[22] Interregional investment drives labour mobility between regions, facilitating the transfer of knowledge, skills and experience from the investing to the invested regions. The labour force, acting as carriers of knowledge spillovers, either joins firms in the new region or establishes new firms. The knowledge they carry flows into the new firm, subsequently transcends the firm boundary and effects interregional knowledge transfer.[23]

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[19] Huang Yin, Hong Tao and Ma Tao, "Urban Network Externalities, Agglomeration Economies and Urban Economic Growth", *Cities*, no. 107 (December 2020): 102882; Tang Chenghui, Guan Mingming and Dou Jianmin, "Understanding the Impact of High Speed Railway on Urban Innovation Performance from the Perspective of Agglomeration Externalities and Network Externalities", *Technology in Society* 67 (2021): 101760; Zhang Hongming, Sun Tieshan and Li Yuanxi, "Network Capital and Economic Growth of Major Urban Agglomeration Regions in China", *Regional Science Policy & Practice* 14, no. S2 (2022): 60–75; Charlie Karlsson and Urban Gråsjö, "Knowledge Flows, Knowledge Externalities, and Regional Economic Development", in *Handbook of Regional Science*, ed. Manfred M. Fischer and Peter Nijkamp (Springer, 2021), pp. 929–56; Martijn J. Burger and Evert J. Meijers, "Agglomerations and the Rise of Urban Network Externalities", *Papers in Regional Science*, no. 1 (2016): 5–16.

[20] Sheng Hantian, Dai Xiaomian and He Canfei, "Gone with the Epidemic? The Spatial Effects of the Covid-19 on Global Investment Network", *Applied Geography* 156 (2023): 102978; Wang Yuandi et al., "Foreign Direct Investment Spillovers and the Geography of Innovation in Chinese Regions: The Role of Regional Industrial Specialization and Diversity", *Regional Studies* 50, no. 5 (2016): 805–22; Huang Lingyun, Liu Xiaming and Xu Lei, "Regional Innovation and Spillover Effects of Foreign Direct Investment in China: A Threshold Approach", *Regional Studies*, no. 5 (2012): 583–96.

[21] David Batten and Gunnar Törnqvist, "Multilevel Network Barriers", *The Annals of Regional Science* 24, no. 4 (1990): 271–87; Roberta Capello, Andrea Caragliu and Ugo Fratesi, "Breaking Down the Border: Physical, Institutional and Cultural Obstacles", *Economic Geography* 94, no. 5 (2018): 485–513.

[22] Fosfuri, Motta and Rønde, "Foreign Direct Investment and Spillovers through Workers' Mobility".

[23] Alexander Oettl and Ajay Agrawal, "International Labor Mobility and Knowledge Flow Externalities", *Journal of International Business Studies* 39, no. 8 (2008): 1242–60; Andrey Stoyanov and Nikolay Zubanov, "Productivity Spillovers across Firms through Worker Mobility", *American Economic Journal: Applied Economics* 4, no. 2 (2012): 168–98; Igor Filatotchev et al., "Knowledge Spillovers through Human Mobility across National Borders: Evidence from Zhongguancun Science Park in China", *Research Policy* 40, no. 3 (2011): 453–62.

Second, regions in an investment network develop their innovation through a demonstration-imitation effect. While risks can be higher for firms in a region engaging in independent innovation, capital contact with other regions provides more information and reduces uncertainty regarding the costs and benefits of innovation.[24] As capital flows between regions, there is a transference of technologies, knowledge and other information between investing and invested regions even if they maintain arm's length relationships with each other. Regions connected by investment networks tend to absorb more advanced technologies and frontier knowledge from other regions, and subsequently promote their local technology development.[25] Thus such demonstration leads to the imitation of superior technologies, managerial and organisational experience—hence transfer of advanced knowledge eventually takes place.[26]

Third, investment networks intensify competition between connected regions. As capital flows into a region, advanced technology and knowledge from outside tend to continuously disrupt the local market equilibrium. In this context, local firms are forced to improve their innovation capability.[27] To mount a competitive response to market entry, local firms expedite the imitation process, rapidly learning and mastering new knowledge and technologies that investments have brought in to avoid being squeezed out of the market. Furthermore, intense competition accelerates independent research and development. Under the pressure of firms that have received external investments, other local firms strive to shape their comparative advantage in competition, continually seeking highly advanced and efficient technologies and updating their technical levels. Consequently, the region's innovation development level keeps improving as firms cope with competition.[28]

Fourth, interregional investment causes industry transfer, leading to structural changes in local industries.[29] Industries that are low-end or those that are not conducive to local innovation are relocated (transferred), in order to reduce costs, boost profits and advance the upgrading of local industrial structures. Local resources are then concentrated on high-end industries and core technologies with regional advantages, accelerating the innovative development of these industries.

The article therefore formulates the following hypothesis:

Hypothesis 1: *Interregional investment networks promote regional innovation growth.*

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[24] Blomström and Kokko, "Multinational Corporations and Spillovers".

[25] Wang Jian-Ye and Magnus Blomström, "Foreign Investment and Technology Transfer: A Simple Model", *European Economic Review* 36, no. 1 (1992): 137–55.

[26] Matija Rojec and Mark Knell, "Why is There a Lack of Evidence on Knowledge Spillovers from Foreign Direct Investment?", *Journal of Economic Surveys* 32, no. 3 (2018): 579–612.

[27] Blomström and Kokko, "Multinational Corporations and Spillovers".

[28] Holger Görg and David Greenaway, "Much Ado about Nothing? Do Domestic Firms Really Benefit from Foreign Direct Investment?", *The World Bank Research Observer* 19, no. 2 (2004): 171–97.

[29] Blomström and Kokko, "Multinational Corporations and Spillovers".

"Buzz-and-pipeline" Effects of Interregional Investment Networks

The impact of network externalities on innovation growth is linked to the "buzz-and-pipeline" concept proposed by Bathelt, Malmberg and Maskell,[30] who have adopted the terms "local buzz" and "global pipelines" to describe two interaction modes in knowledge networks. Local buzz occurs in regions where geographical proximity, similar cultural backgrounds and common beliefs promote the exchange, integration and recombination of knowledge. Innovation actors within the same region form formal and informal cooperative relationships through frequent and continuous face-to-face interactions. In contrast to the localisation characteristic of such buzz, global pipelines support innovation interaction between distant regions. Such interaction via pipelines exposes innovation actors to fresh external knowledge and information, contributing to the exchange of diverse, heterogeneous knowledge across different regions. There is a growing consensus in academic literature that local buzz and global pipelines play distinct but interrelated roles in regional innovation growth.[31]

The concept of "buzz and pipeline" was initially used in cluster-level analyses, such as of intracity clusters like the Munich film and TV industry, and the intercity clusters like the information technology (IT) cluster in the San Francisco Bay area.[32] The local and global scopes depend on not only geographical distance, but also on other boundaries, including culture, institutions, knowledge and structure. With the deepening of globalisation, the spatial scale of innovation activities has been reconstructed. Developments in transportation and information technology have enabled the cross-border flow of innovation factors, reconfiguring the spatial distribution of capital, labour, knowledge and other resources.[33] The "buzz-and-pipeline" effects have thus been reflected on a larger spatial scale and applied in research at the city and urban agglomeration levels.[34]

Similar to knowledge cooperation, investment linkages exist both within and between regions. This article introduces the concept of "buzz and pipeline" into the study of investment networks and innovation growth, examining whether intra- and interregional investment networks function differently in promoting innovation growth. The article's focus, China's 19 urban agglomerations, are connected by smooth investment flows that differ from the majority of international investment flows. Moreover, cities within the same urban agglomeration share similar knowledge, institutions and culture, making them effectively function as a single region. On the other hand, due to their unique natural endowments, histories, development paths and political plans, the 19 regions exhibit different characteristics.

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[30] Bathelt, Malmberg and Maskell, "Clusters and Knowledge".

[31] Cao et al., "'Buzz-and-pipeline' Dynamics in Chinese Science"; Bathelt, "Buzz-and-Pipeline Dynamics".

[32] Bathelt, Malmberg and Maskell, "Clusters and Knowledge"; Harald Bathelt and Johannes Glückler, "Local Buzz and Global Pipelines", in *The Relational Economy: Geographies of Knowing and Learning*, ed. Harald Bathelt and Johannes Glückler (Oxford: Oxford University Press, 2011).

[33] Ron Martin and James Simmie, "Path Dependence and Local Innovation Systems in City-regions", *Innovation* 10, no. 2–3 (2008): 183–96.

[34] Cao et al., "'Buzz-and-pipeline' Dynamics in Chinese Science".

This article therefore proposes the following hypothesis:

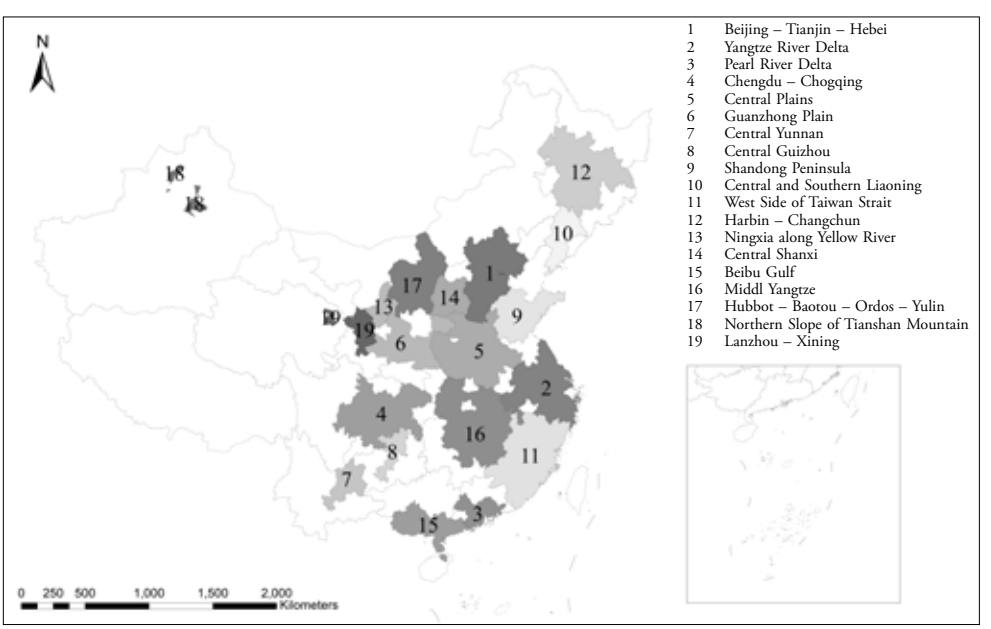
Hypothesis 2: *Interregional investment networks promote regional innovation growth through both the buzz and the pipeline effects.*

RESEARCH DESIGN

Study Area

The article focuses on 214 cities across 19 urban agglomerations in China (Figure 1). The concept of "urban agglomeration" was initially introduced in the 11th Five-Year Plan in 2005. The spatial scope of these 19 urban agglomerations was proposed in the 13th Five-Year Plan in 2016 and they are the main contributors to China's economic growth and high-quality development, breaking administrative boundaries, promoting integrated regional development and advancing China's new-type urbanisation. The latest (14th) Five-Year Plan in 2021 mandates that each urban agglomeration form multicentre, multilevel and multinode urban networks. Given their network characteristics, these agglomerations are naturally suited for studies concerning intra- and interregional networks. These regions encompass 214 cities (72.05 per cent of the total in China) at the prefectural level or above, accounting for 87.25 per cent of gross domestic product (GDP) in China and 77.66 per cent of China's population in 2019. It is worth noting that these regions had 452,411 invention patents, accounting for 97.38 per cent of China's total (Table 1).

Figure 1. Location of the 19 Urban Agglomerations



Source: Developed by the author based on the findings.

TABLE 1
SOCIO-ECONOMIC STATUS OF THE 19 URBAN AGGLOMERATIONS, 2019

Region	No. of cities	GDP (10^{12} yuan)	Population (10^6)	No. of granted patents
Beijing–Tianjin–Hebei	13	8.4476	102.67	77,534
Yangtze River Delta	26	19.7349	132.63	132,242
Pearl River Delta	9	8.6899	37.77	76,128
Chengdu–Chongqing	16	6.506	110.11	24,377
Central Plains	29	7.8519	190.26	15,330
Guanzhong Plain	11	2.1609	44.85	14,390
Central Yunnan	3	1.1064	14.66	2,480
Central Guizhou	3	0.8447	15.54	2,041
Shandong Peninsula	16	7.0474	101.47	27,617
Central and Southern Liaoning	9	2.0925	28.71	8,542
Western Side of Taiwan Strait	20	6.7556	96.99	18,679
Harbin–Changchun	10	2.0129	43.98	10,169
Ningxia along Yellow River	4	0.3426	5.4	685
Central Shanxi	5	8.722	15.52	2,819
Beibu Gulf	10	1.9586	46.25	3,150
Mid-Yangtze	28	9.1501	131.42	34,717
Hohhot–Baotou–Ordos–Yulin	4	1.3246	10.23	1,299
Northern Slope of Tianshan Mountain	2	0.4386	2.58	722
Lanzhou–Xining	4	0.5067	10.26	1,735
Total	214	86.0637	1,087.26	452,411
Percentage (%)	72.05	87.25	77.66	97.38

Notes: Xingtai and Handan of Hebei province belong to both the Beijing–Tianjin–Hebei and the Central Plains urban agglomerations. Yuncheng of Shanxi province is classified as under both the Central Plains and Guanzhong Plain urban agglomerations. Liaocheng and Heze of Shandong province are categorised as belonging to both the Central Plains and Shandong Peninsula urban agglomerations. Yingtan, Fuzhou and Shangrao in Jiangxi province belong to both the western side of Taiwan Strait and mid-Yangtze urban agglomerations.

Model

This article's spatial unit is prefectural- and higher-level cities in China's 19 urban agglomerations. The variables are log-transformed for the analysis. The model can be expressed as follows:

$$lninnov_{it} = \mu + \beta lndegree_{it-1} + \gamma lnControl + \varepsilon_{it} \quad (1)$$

where the dependent variable $lninnov_{it}$ is a proxy for innovation level and the independent variable $degree_{it-1}$ represents the investment network intensity of each city. Given that the scientific and innovative activities require time to yield results, the innovation output is affected by the investment network of the previous period. Thus, the independent variable is taken as period t–1, which also helps avoid a possible endogeneity issue arising from mutual causality between the dependent and

independent variables. *Control* represents vectors of other factors that have an impact on innovation output; β is the estimated coefficient for the independent variable, reflecting the impact of investment networks on innovation; μ is a constant term; and ε_{it}, a stochastic error term.

Variables

Dependent variable

The dependent variable (*innov*) was measured based on the number of granted invention patents, a proxy for innovation whose reliability has been empirically corroborated.[35] In China, patents are classified into three types: invention, utility model and design. Invention patents represent the output of technological innovation. All invention patent applications, upon submission, will be examined by the China National Intellectual Property Administration (CNIPA), which filters out low-quality patents. Thus, the granting of an invention patent signifies a high level of innovation. This article uses data for invention patents from 2005 to 2019 compiled from the CNIPA. The database includes information of 8,311,837 invention patent applications in the 19 urban agglomerations over the said period, of which 3,343,423 were granted. These granted invention patents are aggregated at the city level and used as the dependent variable.

Independent variables

The degree centrality of the investment network of each city was calculated to measure investment network intensity, serving as the independent variable. Investment data were sourced from the Industrial and Commercial Enterprise Registration Database. A weighted investment network was established based on the investing city, invested city and investment amount. Each city is equivalent to a network node and the investment connections between cities are treated as edges in the network. A higher degree centrality indicates a more important node in the network. The calculation of degree centrality has evolved from the conventional method of merely counting the number of edges (degrees) owned by each node,[36] to the consideration of the weights of all edges owned by each node, and then into a measure that combines the number of edges and their weights.[37] This article refers to the calculation method adopted by Opsahl, Agneessens and Skvoretz,[38] that combines the degree of nodes and the weight

[35] Zoltan J. Acs, Luc Anselin and Attila Varga, "Patents and Innovation Counts as Measures of Regional Production of New Knowledge", *Research Policy* 31, no. 7 (2002): 1069–85.

[36] Linton C. Freeman, "Centrality in Social Networks Conceptual Clarification", *Social Networks* 1, no. 3 (1978): 215–39.

[37] Mark E.J. Newman, "Analysis of Weighted Networks", *Physical Review E* 70, no. 5 (2004): 056131; Tore Opsahl, Filip Agneessens and John Skvoretz, "Node Centrality in Weighted Networks: Generalizing Degree and Shortest Paths", *Social Networks* 32, no. 3 (2010): 245–51.

[38] Opsahl, Agneessens and Skvoretz, "Node Centrality in Weighted Networks".

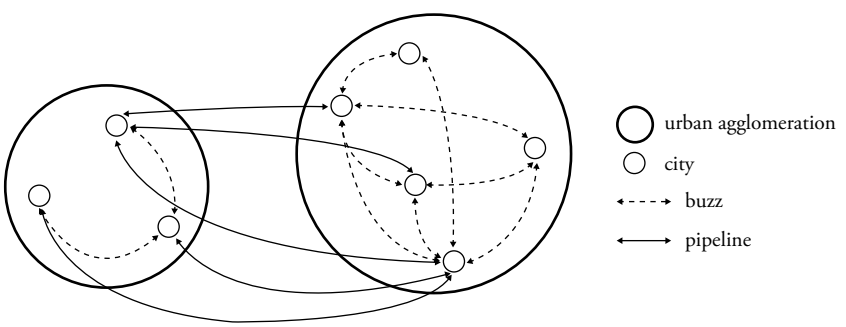
of edges to obtain the degree centrality of each city in the investment network. Degree centrality is therefore calculated as follows:

$$degree = d_i \times \left(\frac{s_i}{d_i}\right)^{\alpha} = d_i^{(1-\alpha)} \times s_i^{\alpha} \quad (2)$$

where d_i represents the degree of node i, and s_i, the sum of the weights of all edges owned by node i; α is a parameter adjusted according to the research. When α is 0, the formula contains only d_i, namely the degree of nodes, and when α is 1, the formula contains only s_i, namely the sum of the weights of edges. Considering the importance of both degree and weight, α is taken as 1/2.

The investment network in China consists of 214 nodes. To study the buzz and pipeline effects, this network is divided into 19 buzz networks representing the investment relationship between cities within an urban agglomeration, and 19 pipeline networks that represent the investment relationships between cities in different urban agglomerations (Figure 2). These networks are undirected, with the average of investment amount between two cities taken as the weights of network edges.

Figure 2. Spatial Pattern Diagram of the "Buzz-and-pipeline" Effects in Urban Agglomerations



Source: Developed by the author based on the findings.

Control variables

Drawing from existing literature, this article identifies three types of factors that may influence innovation output. First, economic factors include: economic size, measured by each city's GDP per capita (*pgdp*); economic structure, measured by the proportion of output value from secondary industry (*gdp2p*); degree of openness, measured by foreign direct investment (*fdi*); and firm development level, measured by the number of industrial firms above a designated size (*ads*).[39] The second

[39] AlAzzawi, "Innovation, Productivity and Foreign Direct Investment-induced R&D Spillovers"; Ascani, Balland and Morrison, "Heterogeneous Foreign Direct Investment and Local Innovation in Italian Provinces"; Ning, Wang and Li, "Urban Innovation, Regional Externalities of Foreign Direct Investment and Industrial Agglomeration".

factor type is related to the innovation environment. This article controls for the proportion of technological innovation employers to all employers (*ptechemp*) and the proportion of technological innovation expenditure in local fiscal expenditure (*ptechexp*).[40] The third type comprises regional accessibility factors like transportation that influence the innovative linkages between regions.[41] This article uses passenger volume (*passenger*) to control for the influence of transportation on innovation. All control variables are compiled from the China City Statistical Yearbooks from 2006 to 2020.

EMPIRICAL RESULTS

Intra- and Interregional Investment Networks and Innovation Growth

Table 2 presents the estimates of the impact of investment networks on innovation growth. Columns (1) and (2) examine the baseline model for periods t and t–1, respectively. Column (3) represents the buzz model, which assesses the impact of the investment networks within each urban agglomeration. Column (4) represents the pipeline model, which examines the impact of investment networks between cities in different urban agglomerations.

In the baseline model, column (1) shows a positive and significant impact of investment networks on innovation in period t. As innovative activities require time to yield results, the innovation output in this period is more affected by the investment network in period t–1. The regression result for the impact of the investment network in period t–1 is represented in column (2), and the subsequent regressions are all tested using the investment network in period t–1. As shown in column (2), the coefficient of the dependent variable is 0.427, which is statistically significant at the one per cent level. Given that the variable is in logarithmic form, a one per cent increase in the degree centrality of the investment network leads to a 0.427 per cent increase in innovation output. For the investment network encompassing all 214 cities, each city's level of innovation development increases with the improvement of investment connection between cities in this network.

Columns (3) and (4) compare the buzz specification and pipeline specification. Both these regressions yield highly significant and positive coefficients for the degree centrality of the investment network (at $p<0.05$), demonstrating that close intra- and interregional investment networks contribute to innovation growth in China's cities. Investment connections within a region significantly promote the innovation growth

[40] Anselin, Varga and Acs, "Local Geographic Spillovers between University Research and High Technology Innovations"; Acs, Anselin and Varga, "Patents and Innovation Counts as Measures of Regional Production of New Knowledge"; Qiu Shumin, Liu Xielin and Gao Taishan, "Do Emerging Countries Prefer Local Knowledge or Distant Knowledge? Spillover Effect of University Collaborations on Local Firms", *Research Policy* 46, no. 7 (2017): 1299–311.

[41] Wang and Cai, "The Construction of High-speed Railway and Urban Innovation Capacity".

of cities in the region, while investment connections between cities in different regions also lead to higher levels of innovation.

TABLE 2
ESTIMATES OF THE IMPACT OF INVESTMENT NETWORKS ON INNOVATION GROWTH

	(1) period t	(2) period t-1	(3) buzz	(4) pipeline
lndegree	0.429**	0.427***	0.181**	0.409***
	(2.465)	(4.327)	(2.325)	(4.243)
lnpgdp	1.792***	1.775***	1.841***	1.814***
	(17.765)	(12.984)	(13.096)	(13.828)
lngdp2p	0.692***	0.985*	0.796	0.950*
	(2.750)	(1.907)	(1.525)	(1.818)
lnfdi	–0.062	–0.070	–0.068	–0.069
	(–0.821)	(–1.328)	(–1.280)	(–1.318)
lnads	0.074	–0.050	–0.063	–0.067
	(0.726)	(–0.327)	(–0.409)	(–0.438)
lnptechemp	0.223***	0.241**	0.246**	0.245***
	(3.049)	(2.577)	(2.595)	(2.605)
lnptechexp	0.004	0.042	0.051	0.045
	(0.105)	(0.928)	(1.125)	(0.982)
lnpassenger	0.032	0.034	0.048	0.029
	(0.756)	(0.485)	(0.697)	(0.408)
N	3,210	2,996	3,108	3,108
Adj R^2	0.384	0.464	0.461	0.463

Notes: *t* statistics in parentheses; significance: * $p<0.1$, ** $p<0.05$, *** $p<0.01$.
In the specification involving all cities, each city is counted once. In both the buzz and pipeline specifications, cities that belong to two urban agglomerations are counted twice.

Robustness Test

Table 3 presents the results of the robustness tests. Column (1) displays the results of replacing the dependent variable, such that the number of granted invention patents is substituted with the number of applications for invention patents. Columns (2) and (3) show the results of replacing the independent variable. To account for potential differences in the impact of inward and outward investment networks, their impacts are measured separately. The inward investment network is based on investments received from other cities, while the outward investment is based on investments made to other cities. The significance and signs of the estimated coefficients in the specifications replacing the independent variable are similar to those in the previous models. Column (4) introduces the concept of national-level metropolitan areas, which the Chinese government approved in 2019. This article regroups cities using the 63 prefectural cities in 14 national-level metropolitan areas (Appendix II) to test the "buzz-and-pipeline" effect of investment networks on innovation growth. The results are consistent with the basic findings, indicating that investment networks significantly promote cities' innovation growth. Overall, the regression results demonstrate robustness.

TABLE 3
ESTIMATES OF ROBUSTNESS TESTS

	(1) applied invention	(2) inward	(3) outward	(4) metropolitan area
all	0.886***	3.077***	1.949***	0.310**
	(11.652)	(8.473)	(5.030)	(2.331)
buzz	1.018***	0.374**	1.444*	0.202*
	(8.655)	(2.212)	(1.886)	(1.713)
pipeline	0.688***	1.168***	0.651***	0.503**
	(9.237)	(6.078)	(3.579)	(2.106)

Notes: *t* statistics in parentheses; significance: * $p<0.1$, ** $p<0.05$, *** $p<0.01$.

FURTHER ANALYSIS

Urban Agglomerations and Cities with Different Network Characteristics

With reference to works by Moreno and Miguélez,[42] and Cao et al.,[43] this article provides insights into regions' specialisation patterns by combining the intraregional index (based on the investment network within urban agglomerations) and the interregional index (the investment network between urban agglomerations). The combination of these two indices represents both internal and external investment connectivity, resulting in a typology that highlights the heterogeneity of the 19 urban agglomerations and 214 cities. Four types of urban agglomerations emerge. The noninteractive type shows low values for both the intra- and interregional indices; the outward type exhibits low values for the intraregional index but high values for the interregional index; the inward type, conversely, shows high values for the intraregional index but low values for the interregional index; and the networked type exhibits high values for both intra- and interregional indices.

Figure 3 presents the typology of urban agglomerations, with the vertical axis representing the interregional index and the horizontal axis, the intraregional index. The interregional index of urban agglomerations is determined by the degree centrality, which sums up the investment amount at the urban agglomeration level by treating each urban agglomeration as a node in the 19-node investment network. The intraregional index of urban agglomerations is the weighted cluster coefficient of investment networks, which is based on triplets of nodes. The coefficient is calculated as follows:[44]

$$clu_w = \frac{\sum_{\tau\Delta} \omega}{\sum_{\tau} \omega} \tag{3}$$

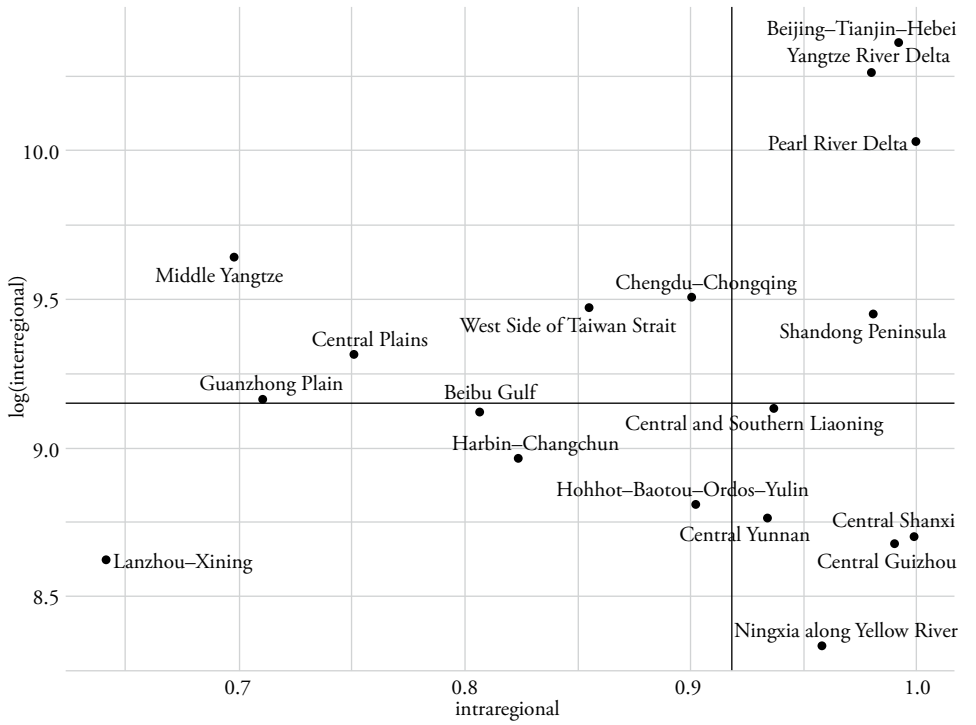
[42] Rosina Moreno and Ernest Miguélez, "A Regional Approach to the Geography of Innovation: A Typology of Regions", *Journal of Economic Surveys* 26, no. 3 (2012): 492–516.
[43] Cao et al., "'Buzz-and-pipeline' Dynamics in Chinese Science".
[44] Tore Opsahl and Pietro Panzarasa, "Clustering in Weighted Networks", *Social Networks* 31, no. 2 (2009): 155–63.

where ω represents the value of each triplet in the investment network within an urban agglomeration; $\sum_{\tau\Delta}\omega$ is the sum of values of all closed triplets; and $\sum_{\tau}\omega$ is the sum of values of all triplets. A triplet consists of three nodes that have undirected connections between two (open triplet) or three (closed triplet) nodes, where cities are the nodes in this context. The intra- and interregional indices are the mean values over 15 years. Based on the medians of these indices, the urban agglomerations are categorised into four types as discussed earlier (Figure 3). Firstly, the urban agglomerations in the lower-left quadrant are the noninteractive urban agglomerations. Harbin–Changchun, the Beibu Gulf, Hohhot–Baotou–Ordos–Yulin and Lanzhou–Xining are four urban agglomerations that fall into this category, occupying the periphery of the economic and innovation space. These four areas accounted for only 6.74 per cent of GDP and 3.61 per cent of total granted invention patents of the 19 urban agglomerations in 2019. Cities in these noninteractive urban agglomerations exhibit enclosed economic and innovative activities, hence resulting in minimal investment connection either between cities in the same agglomeration or different agglomerations. Secondly, the upper-left quadrant shows the outward urban agglomerations, which actively connect with other urban agglomerations but have poor internal connections. The Chengdu–Chongqing, the central plains, Guanzhong Plain, western side of the Taiwan Strait and the mid-Yangtze urban agglomerations belong to regions that are moderately developed in China. Cities in these agglomerations lack the capability to significantly promote each other's development, hence driving them to actively establish linkages with well-developed cities in other urban agglomerations. Thirdly, the lower-right quadrant shows the inward urban agglomerations. Cities in central Yunnan, central Guizhou, Ningxia along the Yellow River, central and southern Liaoning, and the central Shanxi urban agglomerations benefit from regional integration and develop close connections with proximate cities within the same agglomeration. However, their development level restricts their interaction with other urban agglomerations. Fourthly, the upper-right quadrant shows the networked urban agglomerations, indicating a higher level of internal and external integration, including the Beijing–Tianjin–Hebei, Yangtze River Delta, Pearl River Delta and Shandong peninsula agglomerations. These well-developed regions engage in active investment both within and across different agglomerations. The Beijing–Tianjin–Hebei, Yangtze River Delta and Pearl River Delta urban agglomerations are the most developed regions in China. In 2019, these three urban agglomerations achieved 63.20 per cent of granted invention patents and 42.84 per cent of GDP in the 19 urban agglomerations.

Figure 4 illustrates the typology of cities in various urban agglomerations. Similar to the presentation in Figure 3, the interregional and intraregional indices are displayed on the vertical and horizontal axes, respectively. Both indices were calculated as the degree centrality of the investment networks, averaging over 15 years. The intraregional index reflects the networks comprising cities within an urban agglomeration, while the interregional index represents investment flows between different urban agglomerations. The medians of the intra- and interregional indices classify the cities into four types: noninteractive cities in the lower-left quadrant; outward cities in the

upper-left quadrant; inward cities in the lower-right quadrant; and networked cities in the upper-right quadrant.

Figure 3. Typology of Urban Agglomerations

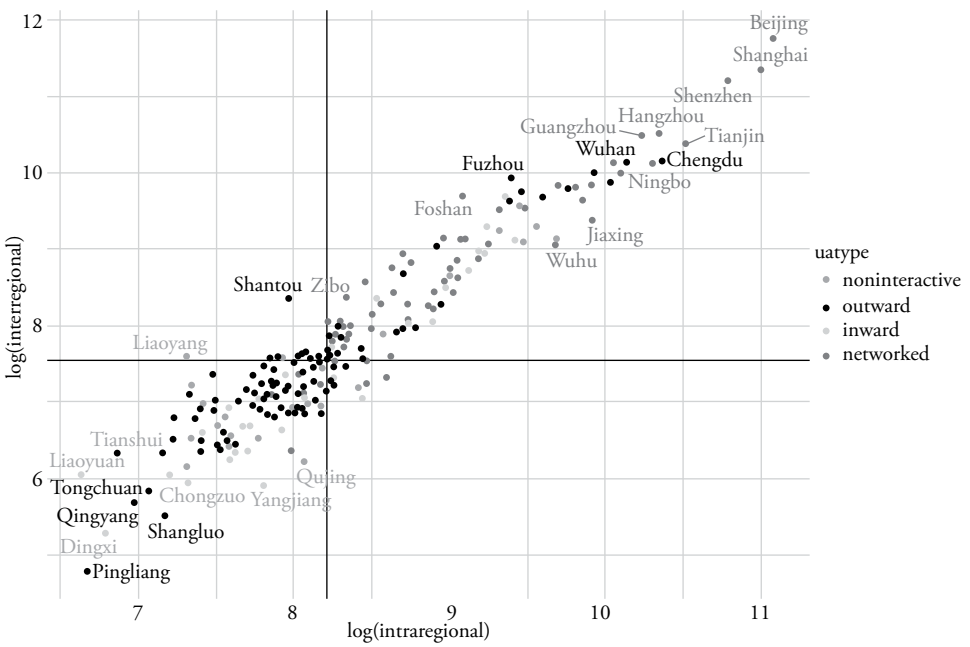


Notes: The Northern Slope of Tianshan Mountain urban agglomeration is excluded, because there are only two cities in this region and the region's cluster coefficient is 0.
Source: Developed by the author based on the findings.

As shown in Figure 4, cities' intraregional network intensity is proportional to their interregional network intensity. Nearly all cities fall under either the noninteractive or networked agglomerations. Noninteractive cities are neither well connected to their regional neighbours nor benefit from external connections. There are 97 noninteractive cities (45.33 per cent of the total), accounting for 3.56 per cent of the granted invention patents, 17.85 per cent of GDP and 34.61 per cent of the population in the 214 cities across the 19 urban agglomerations in 2019. By contrast, the 97 networked cities have both internal and external channels to access resources from other cities. All cities with high administrative levels belong to this type, including municipalities directly under the central government, provincial capitals and municipalities with Independent Planning Status under the National Social and Economic Development categorisation. The number of granted invention patents in the networked cities accounted for 94.41 per cent of the total in 2019. The GDP and the population of these cities accounted for 76.06 per cent and 54.56 per cent, respectively.

The majority of cities in the noninteractive and networked urban agglomerations maintain their agglomeration characteristics when considering city heterogeneity. The Beijing–Tianjin–Hebei, Yangtze River Delta and Pearl River Delta urban agglomerations exhibit the highest intra- and interregional indices at the urban agglomeration level. Cities in these urban agglomerations, including Beijing, Shanghai, Shenzhen, Tianjin and Hangzhou, also show the highest intra- and interregional indices at the city level. However, exceptions exist: high-administrative-level cities in noninteractive urban agglomerations may have frequent internal and external contacts, and networked urban agglomerations may include several less-developed cities that are weakly connected with other cities inside and outside their home urban agglomerations.

Figure 4. Typology of Cities



Source: Developed by the author based on the findings.

Impact of Intra- and Interregional Investment Networks on the Innovation Growth of Urban Agglomerations and Cities

As discussed earlier, urban agglomerations and cities can be categorised into four types according to their intra- and interregional network characteristics. Two key findings emerge in terms of the impacts of investment networks on the different types (Table 4).

TABLE 4
ESTIMATES OF DIFFERENT URBAN AGGLOMERATIONS AND CITIES

	urban agglomeration				city	
	(1) non-interactive	(2) outward	(3) inward	(4) networked	(5) non-interactive	(6) networked
all	–0.185	0.415**	2.528*	0.644***	–0.912	0.619***
	(–0.112)	(2.253)	(1.835)	(6.448)	(–0.480)	(4.863)
buzz	4.750	–0.195	1.930*	1.013***	–1.408	1.195***
	(0.830)	(–0.541)	(1.845)	(7.051)	(–1.250)	(6.396)
pipeline	–0.749	0.447***	–1.384	0.428***	1.442	0.329***
	(–0.490)	(2.725)	(–1.043)	(4.434)	(0.731)	(2.741)

Notes: t statistics in parentheses; significance: * $p<0.1$, ** $p<0.05$, *** $p<0.01$.

First, it is found that with regard to both internal and external investment channels, the impact of investment networks on innovation in urban agglomerations and cities varies according to their network characteristics. From the urban agglomerations perspective, the investment networks' promotion of innovation growth in networked urban agglomerations is significant and positive at the one per cent significance level. The abundance of intra- and interregional channels has provided numerous opportunities for cities in these urban agglomerations to interact with each other, facilitating the flow of knowledge, technologies and experience across these regions. These urban agglomerations with network characteristics tend to have higher economic and innovative levels. Their innovation resources and capacities are thus higher, facilitating their knowledge absorption from other regions and thus boosting their innovation outputs. Conversely, the impact of investment networks on innovation is less significant in inward and outward urban agglomerations, compared to the networked ones. The innovation output of noninteractive urban agglomerations shows no significant sensitivity to investment linkages, indicating that cities in noninteractive urban agglomerations are underdeveloped, and they attract less investment and cannot effectively utilise resource spillovers from investments. Consequently, they struggle to transform innovation resources into innovative products. A similar pattern of heterogeneity also exists among cities; investment networks significantly promote the innovation growth of networked cities but not that of noninteractive cities. Inward and outward cities are few in number, hence they are not discussed.

Second, the effects of buzz and pipelines differ across various types of urban agglomerations and cities. Their effects are significantly positive in networked urban agglomerations and cities, which are situated in regions of relatively high economic and innovative levels. These regions develop local buzz, contributing to innovation with low costs and high effectiveness, while also actively seeking better resources from other regions through multiple investment pipelines. Both effects collectively promote innovation growth. By contrast, noninteractive urban agglomerations and cities show insignificant impacts. Inward urban agglomerations are significant in the buzz specification, while the outward ones are significant in the pipeline specification. Perhaps inward urban agglomerations focus on connecting with their neighbours,

benefitting from regional integration but lacking the ability and motivation to explore further afield. The significance is weaker due to limited resources and small differences among neighbouring regions. Cities in outward urban agglomerations, on the other hand, leverage interregional investment channels to explore and exploit advantages transformed through pipelines.

DISCUSSION AND CONCLUSION

This article utilises panel data from 214 cities within 19 urban agglomerations across China over a span of 15 years to investigate the role of investment networks in fostering innovation growth. The key findings are as follows. First, investment networks have a significant and positive impact on innovation. Closer investment connections between cities lead to greater improvements in innovation. Second, both intra- and interregional investment networks contribute positively to innovation growth in China's cities. This aligns with the discussions by Bathelt, Malmberg and Maskell,[45] which suggest that local buzz and global pipelines accelerate knowledge spillovers and promote innovation growth. Third, based on network characteristics, urban agglomerations and cities can be categorised into the noninteractive, outward, inward and networked types, according to the methodologies of Moreno and Miguélez[46] and Cao et al.[47] These network characteristics have various effects on the impact of investment networks on innovation.

These findings complement existing studies on the relationship between cross-border investment and innovation growth. The existing literature has established that international investment, such as foreign direct investment, contributes to innovation improvement.[48] This article demonstrates that the positive impact of cross-border investment occurs not only between countries but also between regions of a country, enhancing the innovation levels of regions connected through investment.

These findings are instrumental for formulating investment and innovation policies. Policymakers should continue to strengthen investment linkages between regions. For example, they may implement policies to reduce administrative barriers, provide subsidies for interregional corporate investment and establish a market mechanism conducive to interregional cooperation and investment. Priority in selecting investment partners should be given to proximate and developed regions. Furthermore, policies should be tailored to local conditions. Cities in noninteractive regions should increase openness to attract investment from other cities. Outward regions should

[45] Bathelt, Malmberg and Maskell, "Clusters and Knowledge".
[46] Moreno and Miguélez, "A Regional Approach to the Geography of Innovation".
[47] Cao et al., "'Buzz-and-pipeline' Dynamics in Chinese Science".
[48] AlAzzawi, "Innovation, Productivity and Foreign Direct Investment-induced R&D Spillovers"; Ascani, Balland and Morrison, "Heterogeneous Foreign Direct Investment and Local Innovation in Italian Provinces"; Ning, Wang and Li, "Urban Innovation, Regional Externalities of Foreign Direct Investment and Industrial Agglomeration"; Piperopoulos, Wu and Wang, "Outward FDI, Location Choices and Innovation Performance of Emerging Market Enterprises".

further develop external channels, enhance long-distance investment cooperation and strive to strengthen connections within the same urban agglomeration. Inward regions should further improve their level of integration, leverage geographical convenience to establish more intensive investment networks and expand the spatial radius or scope of investment. Networked regions should continuously seek appropriate investment opportunities across different types of urban agglomerations to advance their own innovation levels, as well as those of the regions they invest in, promoting balanced development between regions.

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APPENDIX I
Classification of Urban Agglomerations

Urban agglomeration	No. of cities	Province	City
Beijing–Tianjin–Hebei	13	Beijing	Beijing
		Tianjin	Tianjin
		Hebei	Baoding, Tangshan, Langfang, Shijiazhuang, Qinhuangdao, Handan, Xingtai, Zhangjiakou, Chengde, Cangzhou, Hengshui
Yangtze River Delta	26	Shanghai	Shanghai
		Jiangsu	Nanjing, Wuxi, Changzhou, Suzhou, Nantong, Yancheng, Yangzhou, Zhenjiang, Taizhou
		Zhejiang	Hangzhou, Ningbo, Jiaxing, Huzhou, Shaoxing, Jinhua, Zhoushan, Taizhou
		Anhui	Hefei, Wuhu, Ma'anshan, Tongling, Anqing, Chuzhou, Chizhou, Xuancheng
Pearl River Delta	9	Guangdong	Guangzhou, Shenzhen, Zhuhai, Foshan, Huizhou, Dongguan, Zhongshan, Jiangmen, Zhaoqing
Chengdu–Chongqing	16	Chongqing	Chongqing
		Sichuan	Chengdu, Zigong, Luzhou, Deyang, Mianyang, Suining, Neijiang, Leshan, Nanchong, Meishan, Yibin, Guang'an, Dazhou, Ya'an, Ziyang
Central Plains	29	Henan	Zhengzhou, Kaifeng, Luoyang, Nanyang, Anyang, Shangqiu, Xinxiang, Pingdingshan, Xuchang, Jiaozuo, Zhoukou, Xinyang, Zhumadian, Hebi, Puyang, Luohe, Sanmenxia
		Shanxi	Changzhi, Jincheng, Yuncheng
		Hebei	Xingtai, Handan
		Shandong	Liaocheng, Heze
		Anhui	Huaibei, Bengbu, Suzhou, Fuyang, Bozhou
Guanzhong Plain	11	Shaanxi	Xi'an, Baoji, Xianyang, Tongchuan, Weinan, Shangluo
		Shanxi	Yuncheng, Linfen
		Gansu	Tianshui, Pingliang, Qingyang
Central Yunnan	3	Yunnan	Kunming, Qujing, Yuxi
Central Guizhou	3	Guizhou	Guiyang, Zunyi, Anshun
Shandong Peninsula	16	Shandong	Jinan, Qingdao, Zibo, Zaozhuang, Dongying, Yantai, Weifang, Jining, Tai'an, Weihai, Rizhao, Linyi, Dezhou, Liaocheng, Binzhou, Heze
Central and Southern Liaoning	9	Liaoning	Shenyang, Dalian, Anshan, Fushun, Benxi, Liaoyang, Yingkou, Panjin, Tieling
Western Side of Taiwan Strait	20	Fujian	Fuzhou, Xiamen, Quanzhou, Putian, Zhangzhou, Sanming, Nanping, Ningde, Longyan
		Zhejiang	Wenzhou, Lishui, Quzhou
		Jiangxi	Shangrao, Yingtan, Fuzhou, Ganzhou
		Guangdong	Shantou, Chaozhou, Jieyang, Meizhou
Harbin–Changchun	10	Heilongjiang	Harbin, Daqing, Qiqihar, Suihua, Mudanjiang
		Jilin	Changchun, Jilin, Siping, Liaoyuan, Songyuan

APPENDIX 1 (*cont'd*)

Urban agglomeration	No. of cities	Province	City
Ningxia along Yellow River	4	Ningxia	Yinchuan, Shizuishan, Wu Zhong, Zhongwei
Central Shanxi	5	Shanxi	Taiyuan, Jinzhong, Yizhou, Lyuliang, Yangquan
Beibu Gulf	10	Guangxi	Nanning, Beihai, Qinzhou, Fangchenggang, Yulin, Chongzuo
		Guangdong	Zhanjiang, Maoming, Yangjiang
		Hainan	Haikou
Middle Yangtze	28	Hubei	Wuhan, Huangshi, Ezhou, Huanggang, Xiaogan, Xianning, Xiangyang, Yichang, Jingzhou, Jingmen
		Hunan	Changsha, Zhuzhou, Xiangtan, Yueyang, Yiyang, Changde, Hengyang, Loudi
		Jiangxi	Nanchang, Jiujiang, Jingdezhen, Yingtan, Xinyu, Yichun, Pingxiang, Shangrao, Fuzhou, Ji'an
Hohhot–Baotou–Ordos–Yulin	4	Inner Mongolia	Hohhot, Baotou, Ordos
		Shaanxi	Yulin
Northern Slope of the Tianshan Mountains	2	Xinjiang	Urumqi, Karamay
Lanzhou–Xining	4	Gansu	Lanzhou, Baiyin, Dingxi
		Qinghai	Xining

APPENDIX II
CLASSIFICATION OF NATIONAL-LEVEL METROPOLITAN AREAS

National-level metropolitan area	No. of cities	Province	City
Nanjing	8	Jiangsu	Nanjing, Zhenjiang, Yangzhou, Huai'an
		Anhui	Wuhu, Ma'anshan, Chuzhou, Xuancheng
Fuzhou	4	Fujian	Fuzhou, Putian, Ningde, Nanping
Chengdu	4	Sichuan	Chengdu, Deyang, Meishan, Ziyang
Changsha–Zhuzhou–Xiangtan	3	Hunan	Changsha, Zhuzhou, Xiangtan
Xi'an	4	Shaanxi	Xi'an, Xianyang, Weinan, Tongchuan
Chongqing	2	Chongqing	Chongqing
		Sichuan	Guang'an
Qingdao	4	Shandong	Qingdao, Weifang, Rizhao, Yantai
Shenyang	6	Liaoning	Shenyang, Anshan, Fushun, Benxi, Liaoyang, Tieling
Guangzhou	4	Guangdong	Guangzhou, Foshan, Zhaoqing, Qingyuan
Shenzhen	3	Guangdong	Shenzhen, Dongguan, Huizhou
Jinan	6	Shandong	Jinan, Zibo, Tai'an, Dezhou, Liaocheng, Binzhou
Wuhan	3	Hubei	Wuhan, Ezhou, Huanggang
Hangzhou	4	Zhejiang	Hangzhou, Huzhou, Jiaxing, Shaoxing
Zhengzhou	8	Henan	Zhengzhou, Kaifeng, Luoyang, Pingdingshan, Xinxiang, Jiaozuo, Xuchang, Luohe

COMMENTS AND NOTES

Reflections on the Operation and Closure of Two Confucius Institutes in the United States

Jeff KYONG-McCLAIN and Joseph Tse-Hei LEE

The demise of Confucius Institutes (CI) in the United States was sudden and decisive, as they declined from over 100 to about five in the span of five years. Although much has been written about the CIs in the press, there has been comparably limited academic evaluation of their activities. This article, focusing on reflections on running CIs by two former American directors, suggests that the operation of CIs at the local level was influenced by the faculty involved at the institute rather than by geopolitics. As such, for a better understanding of the function of CIs in the United States, further investigation into local conditions is necessary.

Confucius Institutes (CIs) appear to be nearing their demise in the United States. Having once exceeded 100 in number at their peak, they have dwindled to less than five at the time of writing, with most closures occurring since 2018.[1] Originally heralded as positive examples of educational exchange due to their provision of Chinese language teachers to universities and pre-tertiary schools that otherwise would not have them, suspicions about their true intent proliferated by the late 2010s. Criticisms ranged from spurious accusations of overt communist propaganda or espionage to more measured criticisms of inadequate proper curriculum oversight. However, most

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[1] The best accounting of the actual number is provided by the US Government Accountability Office (GAO) and the National Association of Scholars, a right-leaning think tank that has taken the lead in questioning the motives of Confucius Institutes (CIs) and advocating for their end. See US Government Accountability Office, "With Nearly All U.S. Confucius Institutes Closed, Some Schools Sought Alternative Language Support", October 2023, at <https://www.gao.gov/assets/d24105981.pdf> [3 November 2023]; National Association of Scholars, "How Many Confucius Institutes Are in the United States?", 20 June 2023, at <https://www.nas.org/blogs/article/how_many_confucius_institutes_are_in_the_united_states> [24 September 2023].

American universities closed their CIs when the contracts expired, not primarily due to these criticisms directly, but because of actual and proposed legislation in the US Congress that threatened to withhold funding from universities that host CIs. The first bill to establish this precedent, in setting the overall tone and causing concern among university administrators, was the National Defense Authorization Act for fiscal year 2019, which barred schools with CIs from receiving Department of Defense language funding.[2] The initiative for CIs in the United States, thus, concluded abruptly.

Yet CIs in the United States warrant more in-depth academic assessment than they have received. By distancing from the heat of political debates one can understand the CIs in the context of the history of US–China relations in the educational sphere.[3] For example, American Protestant missionaries promoted American culture and educational models in China from the mid-19th to mid-20th centuries. Although American missionaries operated independently of the American government, they benefitted from Western imperial influence in China at the time, similar to how CIs benefitted from China's rising power in the 21st century.

While there were genuine issues with the Confucius Institute model in the United States, the popular discourse in American media, which may have influenced the waves of anti-CI legislation, often fuelled more controversy than shed light on the discussion. As former American directors of CIs, the authors present a more nuanced analysis of the respective CIs at Pace University and the University of Idaho, contributing to the array of public data available for evaluation. This article reviews the literature on CIs in the next section and then details critical aspects of local CI experiences before drawing its conclusions.

LITERATURE ON CONFUCIUS INSTITUTES IN THE UNITED STATES

The first CI was established in South Korea on 21 November 2004, followed closely by the opening of the first CI in the United States at the University of Maryland. According to the Confucius Institute Headquarters (known as Hanban) in Beijing, the initial vision of the CIs was to function as "non-profit public institutions" aimed at promoting "Chinese language and culture in foreign countries". Both the CIs and Confucius Classrooms (which are semi-independent units in public schools, rather than in universities) were instructed to "adopt flexible teaching patterns and adapt to suit local conditions when teaching Chinese language and promoting culture in foreign

[2] Josh Rogin, "Pentagon Barred from Funding Confucius Institutes on American Campuses", *The Washington Post*, 14 August 2018.

[3] See chapters in Jeff Kyong-McClain and Joseph Tse-Hei Lee, eds., *From Missionary Education to Confucius Institutes: Historical Reflections on Sino–American Cultural Exchange* (Abingdon: Routledge, 2024). On US–China educational exchange, see the special issue "A New Age of US–China Higher Education Relations: Challenges and Opportunities", *American Journal of Chinese Studies* 29, no. 1 (April 2022): 1–84.

primary schools, secondary schools, communities, and enterprises".[4] CIs were modelled primarily after institutions like the British Council, Alliance Française and the Goethe-Institut, which are often mentioned by both critics and supporters of CIs. These institutions sponsor scholarly and cultural activities in the communities they serve. However, unlike these institutions, CIs were located within universities instead of operating as stand-alone institutions; leveraging the universities' positions of authority, CIs employed a comprehensive approach to reach out to "schools, communities, and enterprises". This strategy aimed to establish a Chinese institutional presence in foreign universities to win the hearts and minds of cultural elites worldwide. The specific activities of each CI in the United States varied. Some CIs, such as the "CI of Chinese Opera" at SUNY Binghamton, had specific defined goals, but most focused on promoting Chinese language education by providing free teachers to the university, the community or nearby public schools. There was, typically, a cultural component supported by funding for various Chinese (usually traditional) cultural performances. The programming depended largely on the priorities set by the American and Chinese directors, but language education remained central in all cases.

In the early years, American political, business and educational leaders were enthusiastic about the CI initiative. Early academic evaluations were more neutral, adopting a wait-and-see approach, focusing on whether CIs might become tools of soft power, subtly influencing people's perception of Beijing's benevolence.[5] The earliest scholarly critique was articulated by Marshall Sahlins, the late anthropologist at the University of Chicago, whose criticism, published in *The Nation* in 2013, sparked significant discussion about the potential erosion of academic freedom in the CI programmes. Sahlins cites several instances of CIs stifling campus discussion on controversial topics. He highlights, "Many reputable and informed scholars of China have observed that the Confucius Institutes are marked by the same 'no-go zones' that Beijing enforces on China's public sphere".[6] Sahlins further remarks,

> Considering that the political constraints in effect on public discussions of specific topics in China are usually followed in Confucius Institutes—no talking of Tibetan independence, the status of Taiwan, the fourth of June 1989 at Tiananmen Square, Falun Gong, universal human rights, etc.—these academic events [guest lectures and scholarly conferences on China] are largely consistent with the 'cultural activities' of CIs, insofar as they likewise present a positive picture of

[4] Confucius Institute Headquarters [Hanban], "About Confucius Institutes and Hanban", International Education Exchange Information Platform, 6 November 2016, at <http://www.ieeip.cn/bbx/1071727-1123792.html?id=27381&newsid=715399> [3 November 2023].

[5] For example, James F. Paradise, "China and International Harmony: The Role of Confucius Institutes in Bolstering Beijing's Soft Power", *Asian Survey* 49, no. 4 (July/August 2009): 647–69, and Leung Chi-Cheung and Hilary du Cros, "Confucius Institutes: Multiple Reactions and Interactions", *China: An International Journal* 12, no. 2 (August 2014): 66–86.

[6] Marshall Sahlins, "China U.", *The Nation*, 30 October 2013, at <https://www.thenation.com/article/archive/china-u/> [3 November 2023].

> a peaceful, harmonious, and attractive People's Republic. From classes on making dumplings to film showings, celebrations of Chinese festivals, and 'traditional' folk dances, the CIs put on various 'culturetainments' (as Lionel M. Jensen dubbed them) for the community at large.[7]

Concerns about China's influence infiltration in universities led critics to perceive CIs as propaganda tools. However, not all scholars shared this view. Historian Edward A. McCord from George Washington University argued in *The Diplomat* that criticism like that from Sahlins "often leaps from suspicions and concerns to a conclusion of fact" based on scant evidence.[8] Sahlins garnered support from the University of Chicago faculty that its administration should close down its CI, partially in response to the controversy. However, Sahlins' criticism did not reach much beyond small segments of the academy and cannot be said to have had much influence on the subsequent closures of CIs across the United States. Sahlins' critique came from the left, but widespread censure emerged only with the ascendence of the Trump-influenced, "America first"-orientated right. Subsequently, official restrictions (or threats thereof) on foreign government funding for universities have accelerated the closure of CIs and Confucius Classrooms across the United States.

The academic investigation of CIs in the United States is still in its nascent stage. Some scholars have critically examined CIs. The late historian Arif Dirlik noted, "[T]he Institutes transgress against even moderate notions of 'conflict of interest' between donor demands and educational autonomy. That the donor in this case is a propaganda organ of a foreign state propaganda apparatus tasked with promoting 'soft power' adds an unprecedented dimension to the conflict of interest".[9] Anthropologist Magnus Fiskesjö advances a more moderate critique, cautioning about the unintended consequences of "indebted endorsement" when university administrators hastily embraced the CIs without consulting the faculty. Publicised examples of Chinese interference in academic discourse in Europe, Australia and Canada suggest that "Chinese state funds come with dangerous strings attached".[10] Sun's reflections on

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[7] Marshall Sahlins, "Confucius Institutes, Academic Malware", *The Asia-Pacific Journal: Japan Focus* 12, issue 46, no. 1, Article 4220 (16 November 2014), at <https://apjjf.org/2014/12/46/Marshall-Sahlins/4220.html> [3 November 2023].

[8] Edward A. McCord, "Confucius Institutes: Hardly a Threat to Academic Freedoms", *The Diplomat*, 27 March 2014. See also a more recent take by McCord: Edward A. McCord, "Where's the Beef? Confucius Institutes and Chinese Studies in American Universities", *Critical Asian Studies* 51, no. 3 (July 2019): 426–32.

[9] Arif Dirlik, *Complicities: The People's Republic of China in Global Capitalism* (Chicago, IL: Prickly Paradigm Press, 2017).

[10] Magnus Fiskesjö, "Who's Afraid of Confucius? Fear, Encompassment, and the Global Debates over the Confucius Institutes", in *Yellow Perils: China Narratives in the Contemporary World*, ed. Franck Billé and Sören Urbansky (Honolulu, HI: University of Hawaii Press, 2018), p. 230.

China's image-building through the CIs follow similar streams of reasoning.[11] Despite extensive monetary and time investment in establishing CIs in the United States, China has struggled to change American perceptions of its authoritarian system or to promote its socialist values as an attractive model to emulate. Although China has had limited success in enhancing its national image through this educational initiative, some American students seemed to have developed a sophisticated understanding of China through CIs.

Similarly, Falk Hartig argues that CIs should be viewed as a key component of China's public diplomacy in the global soft power competition.[12] Hartig shows that the public image aspect of CIs was seen as essential by the Beijing authorities in the face of hostile Western media.[13] Hartig also points out that contrary to American views of a monolithic and assertive "China", CIs are not universally supported within China and are viewed by many in China as a financial waste.[14] Amy Stambach identifies the problem of the CIs in American universities as symptomatic of a broader decline in state funding for higher education in the United States, reflective of a global neoliberal approach that favours privatisation of education over state activity.[15] Although Stambach criticises the CI model, she attributes blame to the "market model" of education, which benefits the wealthy over the less affluent in both China and the West. Lastly, Hubbert's ethnographic study of the Confucius Classrooms provides the most nuance and insight into the discussion.[16] Current scholarship highlights the diverse temporal and spatial contexts in which CIs operated. The following case studies offer unique institutional perspectives on faculty governance, language instruction and community programming.

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[11] Shao-cheng (Michael) Sun, "China's Soft Power Strategy at the Confucius Institutes in the United States", in *From Missionary Education to Confucius Institutes: Historical Reflections on Sino–American Cultural Exchange*, ed. Jeff Kyong-McClain and Joseph Tse-Hei Lee (Abingdon: Routledge, 2024), pp. 171–87.

[12] Falk Hartig, *Chinese Public Diplomacy: The Rise of the Confucius Institute* (London: Routledge, 2016).

[13] Hartig, *Chinese Public Diplomacy*, p. 19. Romi Jain and Susy Tekuman have convincingly shown that the CIs successfully bolstered China's geo-intellectual resources and facilitated cooperation in higher education in Nepal, Cambodia and Indonesia. Romi Jain, *China's Soft Power and Higher Education in South Asia* (New York: Routledge, 2021); Romi Jain, "Exploring China's Geointellectual Footprint in Southeast Asia", in *Empire Competition: Southeast Asia as a Site of Imperial Contestation*, ed. Amy Freedman and Joseph Tse-Hei Lee (New York: Pace University Press, 2022), pp. 81–103; Susy Tekuman, "The Allure of the Phoenix: China's Soft Power Competition in Southeast Asia", in *Empire Competition: Southeast Asia as a Site of Imperial Contestation*, pp. 229–51.

[14] Hartig, *Chinese Public Diplomacy*, pp. 106–7.

[15] Amy Stambach, *Confucius Institutes and Crisis in American Universities: Culture, Capital, and Diplomacy in U.S. Public Higher Education* (New York: Routledge, 2014).

[16] Jennifer Hubbert, *China in the World: An Anthropology of Confucius Institutes, Soft Power, and Globalization* (Honolulu, HI: University of Hawaii Press, 2019).

THE CONFUCIUS INSTITUTE AT PACE UNIVERSITY

Located in the heart of Manhattan, the Confucius Institute at Pace University (hereafter "Pace CI") was the first university-based institute of its kind in New York City when established in 2009. It was also the first CI formed through a tripartite partnership among Pace University, Nanjing Normal University and the Phoenix Publishing and Media Group (PPMG) in Nanjing, Jiangsu province. All three partners signed a five-year agreement with Hanban and Pace CI applied for funding from Hanban and PPMG to begin the operation of the institute. The host submitted a budget proposal at the end of each calendar year and the hosting institution was responsible for auditing and approving the proposed events and budgetary expenditures. As evident in Sun's research findings, this procedure was common across the United States.[17]

In striving to integrate pedagogical and scholarly expertise into Chinese language instruction, Pace CI's cooperation with the PPMG, China's national publishing conglomerate, had contributed to the development of Chinese language textbooks and an educational app. In the sections below, the authors discuss the importance of American faculty governance in managing the operation and curriculum design at Pace CI, the innovative cultural events that convened and engaged academics, students, community partners and Wall Street professionals, and the development of Chinese learning resources such as textbooks and social media apps. Although it closed in late 2019, Pace CI had benefitted from its transparent faculty governance and thus avoided the controversies faced by other CIs in the United States.

Importance of Faculty Governance

Each Confucius Institute is co-managed by the US host university and a Chinese partner university. Liu's study, drawing on dozens of partnership agreements, argues that US universities and Chinese partners exercised considerable autonomy in the daily management of CIs.[18] Pace CI ensured that all agreements were consistent with US laws and adhered to the principle of faculty governance. A tenured US faculty member served as the American CI director, playing a crucial role in prioritising, designing and reviewing CI events in the United States. The advisory board included university executives and faculty experts in Asian studies, Chinese and modern languages, Asian psychology and economics. They met each semester to evaluate the progress report from the American CI director.

This faculty-led governance structure proved to be beneficial to the operation of Pace CI on two levels. First, the faculty leadership ensured academic freedom and transparency in organising events on historical and contemporary topics such as Maoism, the Cultural Revolution, Christianity and Islam in China, Hong Kong's Umbrella Movement protests in 2014 and US–Taiwan relations. Pace CI did not shy

[17] Sun, "China's Soft Power Strategy", pp. 174–5.

[18] Liu Huichun, "Confucius Institutes in the United States: Legal Considerations", in *From Missionary Education to Confucius Institutes*, ed. Kyong-McClain and Lee, pp. 188–204.

away from discussing such topics. For instance, Pace CI was officially launched on 5 May 2009, with a symposium on "Confucianism and Global Education", featuring the late Sinologist William Theodore de Bary of Columbia University and Deborah A. Sommer of Gettysburg College as keynote speakers. Professor de Bary shared classical Confucian insights on critical learning, while Sommer examined the Red Guards' portrayal of Confucius during the Cultural Revolution. In early December of the same year, amid the repercussions from the 2008 financial crisis, Pace CI organised and sponsored a lecture by Michael Santoro, then professor at Rutgers University and author of *China 2020: How Western Business Can—and Should—Influence Social and Political Change in the Coming Decade*, to shed light on the implications of China's economic boom for global business ethics. Such an arrangement impressed visiting Chinese scholars in terms of the virtue of faculty governance. Some of these seminars were published in an occasional paper series edited by the East Asian Studies Program of Pace University and were accessible via the university's Digital Commons.[19]

Second, the governance structure had fostered a collegial environment for the Chinese director and other visiting Chinese instructors to adjust and adapt to US campus culture. Some visiting teachers were initially unfamiliar with the interactive culture of US classrooms and they recognised the need to enhance American students' sense of ownership in learning. The faculty-led setting provided a supportive space for visiting instructors to receive feedback from US professors. A critical observer noted that Pace CI "displayed the most openness of any Confucius Institute" and "demonstrated the most welcoming treatment of outside researchers".[20]

Teaching Chinese

Pace CI effectively integrated Chinese language studies into academic disciplines and professional programmes. Under the adept leadership of its American staff, Pace CI launched an initiative called "faculty seminar" in the spring of 2011 that was aimed at providing selected faculty from various disciplines with a year-long Chinese language and cultural learning programme to help them develop China-focused courses. During the first faculty seminar from fall 2010 to summer 2011, eight faculty members studied the Chinese language for several months before embarking on a summer trip to China. Upon their return, they proposed new undergraduate courses with significant China-

[19] These published lectures were published in *Global Asia Journal*: Joseph Tse-Hei Lee et al., "From Philosopher to Cultural Icon: Reflections on Hu Mei's 'Confucius' (2010)", *Global Asia Journal* 11, March 2011, at <https://digitalcommons.pace.edu/global_asia_journal/11> [6 November 2024]; Joseph Tse-Hei Lee et al., "Reflections on Literature: East and West", *Global Asia Journal* 15, July 2014, at <https://digitalcommons.pace.edu/global_asia_journal/15> [6 November 2024]; Joseph Tse-Hei Lee, Satish K. Kolluri and Zhen Pan, "China and India: Globalization with Different Paths", *Global Asia Journal* 16, March 2015, at <https://digitalcommons.pace.edu/global_asia_journal/16> [6 November 2024].

[20] Rachelle Peterson, *Outsourced to China: Confucius Institutes and Soft Power in American Higher Education* (New York: National Association of Scholars, 2017), at <https://www.nas.org/reports/outsourced-to-china/full-report> [6 November 2024].

related content in art, criminal justice, economics, finance and literature. These courses included "Rising Powers: China's Economic Growth and Development", "Raise the Red Lantern: Contemporary Chinese Film and Literature in Translation" and "Development of Finance in China". These new courses were designed, reviewed and approved exclusively by the faculty, without CI staff involvement in the university's curriculum development. The second faculty seminar, held from fall 2012 to summer 2013, recruited five professors who deepened scholarly exchanges with Nanjing Normal University during their China trip.

Professionally, nurturing a new generation of US instructors in Mandarin Chinese was, and remains, a priority. Pace CI benefitted from the publishing expertise of its third partner, PPMG. The first and second Chinese directors of Pace CI, language experts from Nanjing Normal University, collaborated with visiting language instructors from Nanjing and other parts of China to develop introductory Chinese textbook projects for US students. The third Chinese director, a Western literature professor from Nanjing Normal University, ensured the successful completion of these projects by late 2019. PPMG sponsored these projects from the start and produced a social media app, marking the first CI-launched learning materials in both print and electronic formats in the United States. The visiting language experts, in consultation with the modern language faculty at Pace rather than with their Chinese counterparts, transitioned from the traditional Chinese textbooks and created interactive lessons on pronunciation, expressions and listening practices.

Pace CI also established itself as a knowledge service provider to clients in Manhattan. In response to market demand, it offered private classes on business Chinese for Wall Street corporations, practical Chinese for healthcare professionals and Chinese tutorials for adult learners. These classes attracted serious learners seeking professional training in teaching Chinese to foreigners. In this context, Pace CI hosted the Chinese Language Teachers Association of Greater New York conferences in 2010 and 2015, inviting professors from the tristate area (New York, New Jersey and Connecticut) to share their insights. From the mid-2010s to the COVID-19 lockdown, Pace CI managed the Chinese language proficiency test centre, popularly known as HSK (*Hanyu shuiping kaoshi*) in New York City, offering on-site and internet-based testing services. This demonstrated how CIs, with careful faculty supervision and executive leadership, could diversify their services.

Community Partnerships

Given its proximity to Manhattan's Chinatown, Pace CI collaborated with community partners to provide a platform for New Yorkers interested in the Chinese language and culture. A significant accomplishment was its long-standing partnership with the New York Chinese Opera Society (NYCOS), a non-profit organisation comprising volunteers, opera enthusiasts, trained Peking opera artists and classical Chinese musicians. NYCOS used to hold its annual winter cultural exchange festival at the Schimmel Center for the Arts at Pace University, featuring Peking opera performances

by internationally renowned artists from China and performers from the tristate area. The festival showcased traditional Peking operas and operatic adaptations of well-known biblical stories, such as the "Story of Ruth" in 2010 and "King David and Bathsheba" in 2011. While adapting these biblical narratives into traditional opera songs was challenging, such an enculturation approach highlighted shared ethics between Confucianism and Christianity. Pace CI organised pre-performance seminars on the basics of Peking opera, thus facilitating interaction among Pace faculty and students, NYCOS supporters, local Peking opera artists and media. This partnership elevated Pace CI's visibility as a platform to advance other Chinese regional operas. Several New York-based Chinese arts clubs performed Kun opera, puppet shows and a lion dance during the Mid-autumn Festival and Lunar New Year.

Pace CI reinforced this collaboration by establishing a NYCOS-sponsored Chinese studies essay competition in 2010. Open to all Pace students and co-sponsored by the university's East Asian studies programme, the essay competition encouraged in-depth research on China. Pace faculty's evaluation of the essays submitted by students on topics related to China shortlisted several notable essays—e.g. "The Obscurity behind Deng Xiaoping's 'Socialism with Chinese Characteristics'"; "Closing the Gap: An Academic and Personal Approach to China's Rise to the Top"; and "Hong Kong and Bollywood: Theories of Sound in Different Cultures". An East Asian studies minor also received recognition for his autographical reflections, entitled "China: My Past, Present, and Future".[21]

In addition to traditional operas, Pace CI engaged the public by sharing its intellectual resources. One such community partnership was the "Sunshine School", a project aimed at helping the children of Chinese professionals learn Mandarin. Since these children attended American elementary schools and were eager to gain peer recognition, Pace CI instructors developed language games to enhance the classroom experience. These games helped the six-to-eight-year-old students expand their Chinese vocabulary. By the end of the programme, students could write more than 100 characters and recited several classical poems. Building on the insights and experiences gained from the Sunshine School project, Pace CI broadened its community outreach. From the summer of 2012 until the COVID-19 lockdown, Pace CI collaborated with A Place for Kids, a Chinatown-based nongovernmental organisation providing after-school and summer programmes for children of low-income families in Manhattan, and also organising a Chinese immersion camp for children at PS2 Meyer London elementary school in Chinatown. Through this partnership, Pace CI dispatched its instructors and volunteers to teach children basic conversational Chinese using fun activities and games, such as singing, dancing, plays and puppetry. While the immersion programme was targeted at sparking interest in learning a foreign language among

[21] An article on Taiwan submitted by a student also received recognition. See Christopher Y. Huang and Joseph Tse-Hei Lee, "Entangled Web: The Wikileaks and U.S.–China Rivalries over Taiwan", *International Journal of China Studies* 4, no. 3 (2013): 285–300.

K-12 students of diverse backgrounds, Pace CI instructors and volunteers also learned about New York City's ethnic and racial diversity from their students.

The University and local communities recognised Pace CI's contributions to the study of Chinese language and culture and fostering cross-cultural dialogue between East and West. In terms of faculty governance, Pace CI provided an exemplary US-based faculty control. However, the dominant trend of Sino–American relations since Donald J. Trump's first presidency has shifted towards decoupling, rather than building trust. Consequently, Pace CI ended its collaboration with Hanban, PPMG and Nanjing Normal University in 2019 amid this challenging climate.

THE CONFUCIUS INSTITUTE AT THE UNIVERSITY OF IDAHO

The University of Idaho Confucius Institute (UICI) was founded in 2013 through a tripartite agreement signed among Hanban, the University of Idaho and the South China University of Technology in Guangzhou. Although a second five-year agreement was signed in 2018, the Institute closed at the end of the spring semester in 2021. Unlike Pace CI, UICI did not develop a robust faculty governance system and instead relied primarily on the personalities of its Chinese and American directors and the goodwill of administrators, particularly the university president.[22] Like many higher education institutions, the University of Idaho experienced frequent turnover in administrative positions, which, combined with the absence of an active faculty board, hindered the Institute's integration into the university community. While the University of Idaho faculty members did not openly oppose it (as had happened at the University of Chicago), UICI remained relatively peripheral to normal university life.

An early mission statement expressed UICI's aim "to further the understanding of Chinese language and culture, to encourage faculty and student exchange, and to foster economic development between the US and China".[23] Overall, while UICI achieved reasonable success in language and cultural exchange, little progress was made in economic development. During the 2012–13 period when planning for the new CI was underway, facilitating business connections was a central selling point among early supporters. During his tenure as American director, Jeff Kyong-McClain noted mild disappointment from several people from the business community of Coeur d'Alene, the largest city in north Idaho, that there was a lack of business focus at UICI. Nonetheless, language offerings and China-related cultural and academic programming remained the primary focus for most people, and UICI had made significant contributions on these two fronts.

[22] An assessment report commissioned by Hanban noted this tendency to depend solely on administrators for support as a significant problem for many CIs. See Lee Lu, Mel Gurtov and Dale Cope, "Confucius Institutes in the U.S.: Final Report", 2020, p. iv.

[23] UICI promotional display, ca. 2014, on file at Habib Institute for Asian Studies, University of Idaho.

Chinese in the University and Public Schools

One of the major selling points for CIs, globally, was their ability to provide language teachers at lower cost for schools, often public, but private as well, that otherwise might be unable to afford Chinese instruction. Indeed, at the time when the University of Idaho lacked Chinese language offerings, the promise of heavily subsidised and qualified teachers was a strong incentive to cooperate with Hanban. While most American universities with CIs did not have CI instructors to teach for-credit classes, given their preference to designate assistant roles to the instructors to support the existing faculty, the University of Idaho roped in UICI teachers to teach the full suite of for-credit Chinese language classes over its eight-year span, due to the absence of a Chinese programme. The programme was a modest success in terms of enrolment, which began with 13 students in for-credit Chinese courses in fall 2013 and grew to 35 students by fall 2020.

UICI recruited Chinese teachers primarily from the South China University of Technology, either faculty or graduate students from its language department. These teachers' ability to teach effectively and manage American university classrooms varied, but that generally did not pose any significant issues. One weakness of UICI's Chinese language programme was its lack of integration with other modern languages at the university, as its top-down implementation in UICI bypassed routine department-level procedures of hiring and assessment; in short, the process fell outside typical oversight and control.

Like other CIs, UICI did not restrict its scope to language education at the university: it also coordinated and supported Chinese language education in high schools across the state, from Coeur d'Alene in the north to Boise in the south. The efforts were met with varying degrees of success, and the number of schools interested in joining or leaving the programme was constantly changing. The most notable achievements were schools in Moscow, Idaho, where the University of Idaho is located, probably due to existing connections between the university and local schools. Other schools were less committed for the long term. The issue was often not the teachers sent from China, as they were qualified middle-school language instructors in China, but rather, the uncertainty of securing new teachers each year. School principals were concerned about sustaining Chinese language classes without a guaranteed, uninterrupted supply of teachers. UICI had no clear solution, as new teachers needed to be found every one to two years.

A common criticism of CI language teaching is that Hanban introduced their teachers into American schools without significant oversight. From UICI's perspective, this criticism is exaggerated. Typically, Hanban would propose two or three candidates to UICI. The American and Chinese directors, and personnel from the public schools would review the candidates' resume and then conduct interviews over Zoom to assess the English proficiency of candidates. While the search was less rigorous than for a full-time faculty position, it was comparable to the hiring of adjunct instructors. Importantly, UICI and Idaho schools were not obligated to accept specific teachers.

On at least one occasion, a candidate favoured by the Chinese director was rejected due to insufficient language qualifications.

The teachers at UICI turned out to be diverse, as one might expect. One author observed that many were drawn to the United States due to their fascination with American culture (for instance, restaurants like the Cheesecake Factory and popular TV sitcoms like *Friends*). Such fondness for American pop culture among CI teachers was a sharp contrast to critics' portrayal of them as propagandists for the Chinese Party-state. While CI teachers evidently had a strong sense of pride in their homeland, they rarely expressed overt political views. Some attended local Bible study groups, further integrating into their temporary home, and a few expressed support for American policies, even those of Trump, setting them apart as quite unusual for faculty on an American campus! Throughout UICI's eight-year existence, no complaints were ever received from students or parents about classroom propaganda, and it seems highly doubtful there would have been cause for such concerns. Although Hanban provided free textbooks (which contained no obvious political messages), teachers were free to decide whether to use them, and at the University of Idaho, they were required to use US-published textbooks to align with common practices at most American universities.

In summary, UICI's experience with Hanban-funded Chinese teachers was largely positive and—notably—with no political controversies arising. While adapting to the American classroom, managing the constant turnover of teachers and the disconnect from the normal university department life and practices presented real challenges for UICI, they did not outweigh the primary benefit of the programme: bringing Chinese language education to Idaho.

Programming on Campus and Community

While language education was the primary goal for most CIs, providing China-related programming, both on campus and within the community, was also a significant focus involving substantial time and financial investment. Like many other CIs, UICI also organised Chinese New Year or Mid-autumn Festival cultural events on campus and in various locales across the state. Hanban occasionally sent performance troupes such as Peking Opera on tour or martial arts demonstrations. If schedules and finances allowed, UICI would also assist in organising performance stops in Idaho.

Two notable UICI offerings in the programming category were the "China on the Palouse Speakers Series" on campus,[24] launched in the early years of the UICI, and the Confucius Institute Movie Night organised for the community. The former series, launched by the Chinese and American directors and running from 2015 to 2021, was one of the more successful programmes at UICI in terms of longevity. Initially, many speakers were faculty or staff from the University of Idaho or South

[24] The Palouse refers to the region of rolling loess hills extending in the region around Moscow, Idaho and Pullman, Washington.

China University of Technology. For instance, Robert Snyder, an adjunct in philosophy, taught three sessions on Confucianism, Daoism and the "Three Teachings" (*Sanjiao*, referring to Confucianism, Buddhism and Daoism). Another early series focused on Chinese American history in Idaho, featuring talks by University of Idaho anthropologist Priscilla Wegars, University of Idaho archivist Terry Abraham and Oregon-based journalist Gregory Nokes. During the 2018–19 academic year, the series shifted focus from featuring local scholars to inviting notable scholars from further afield, such as Anna Sun (Kenyon College), Andrew Jones (University of California, Berkeley), Thomas Talhelm (University of Chicago) and Qinna Shen (Bryn Mawr College), the last of whom spoke to a packed house about the 1989 student protest movements in China and East Germany. Notably, Hanban provided no guidance regarding the content of the series, leaving the American director in charge; similar to the programming at Pace CI, the series was conducted under the assumption of the academic freedom that is typical of American universities.

The main community outreach event was Confucius Institute Movie Night, which screened three to four Chinese-language films per semester in The Kenworthy, the local arthouse theatre. In its earliest editions, Movie Night initially featured films provided by Hanban, considered useful for Chinese language learning. Over time, the series adopted a more thematic approach, exploring themes such as "History of Chinese Cinema", which included classic films like *Spring in a Small Town* and *Red Detachment of Women*; "Chinese Cinema and the Environment", showcasing films like *Plastic China*, Chai Jing's *Under the Dome* and the Dante-inspired art film on the coal industry *Behemoth*; and a Shaw Brothers' kung fu retrospective—before COVID-19 halted the activities. Given the diverse selection of films featured, it would be implausible to label Movie Night as a propaganda exercise. Although the film *Red Detachment of Women* was certainly a political movie upon its 1961 release in China, 60 plus years later, its melodramatic story of the virtuous People's Liberation Army (PLA) versus the villainous local tyrant seems quaint and highly unlikely to persuade modern American audiences to join the PLA! Furthermore, the environmental series featured films that realistically portrayed ecological crises in contemporary China and introduced American audiences to Chai Jing's compelling documentary that narrates the severity of air pollution in Beijing. The documentary garnered significant attention in China in 2015 before being censored online on the internet. Audience attendance and anecdotal evidence indicated that the Moscow community greatly appreciated the UICI screenings, and like the Speaker Series, programming decisions were entirely made by the UICI directors, without interference from Hanban.

These two examples are not exhaustive of UICI's content programming that is not related to language instruction, e.g. Chinese cooking demonstrations, table tennis coaching, tai chi instruction and various outreach events requested by schools or community organisations. Contrary to suspicions of CI operations, all programming decisions (both planning and implementation) were left to the discretion of the Chinese and American directors. Hanban did not provide guidance or impose restrictions on programming content, but instead was satisfied with the fact that there was robust

China-related programming in Idaho. Thus, there was an extraordinary degree of freedom, constrained only by the interests and sensitivities of the directors themselves. Consequently, it is reasonable to assume that some CIs, like those at the University of Idaho and Pace, might organise events that seem to address sensitive topics, such as the events of 1989 or environmental issues, while others might choose not to. As such, CIs functioned much like a typical university unit.[25]

Contrarians and Closure of UICI

For its first five years, UICI faced little criticism. This began to change around 2019, paralleling the national increase in criticisms of the CIs. At that time, a Boise-based, conservative libertarian-leaning organisation, which opposed funding for public education in general, focused on UICI, using social media to criticise it. Its summary of UICI's work appeared based on a generic template for criticising CIs rather than actual experience with UICI, claiming, for example: "[CIs] propagandize for Beijing and serve as outposts for Communist Party espionage".[26] This group does not deserve credit for UICI's closure, but was fortuitously positioned to add fuel to the controversy. More concerning to the University of Idaho administration were developments in Washington, DC, which threatened increased scrutiny of federal funding for schools with CIs. At one point, the university administration held a Zoom meeting at the request of the Federal Bureau of Investigation (FBI) to discuss potential threats posed by CIs. To the credit of the agents, they acknowledged no known instances of CI-related espionage nor of propagandising, only suggestions that it might be possible. Nevertheless, mounting federal inquiries such as this, combined with the threat of anti-CI legislation, ultimately prompted the University of Idaho to sever ties with Hanban and close the CI in 2021.

CONCLUSION

With the recent decline of Sino–American relations, the fate of CIs in the United States seems to be sealed. McCord highlights the "specific common motivations or values that advanced the Sino–American educational cooperation" from the mid-19th century to the present. This exchange is characterised by the dedication of "a gathering of committed women and men as individuals", highlighting a personal aspect behind the various CI operations in elite universities, public universities and community colleges. "Equally important are the institutions that supported them and the institutions

[25] One criticism is that the CI Chinese language teachers seldom talk about 1989. This critique misunderstands free speech, for if we are to compel language teachers to teach political issues, we are not offering them the opportunity of free speech. See Jennifer Hubbert, "[Un]Free Speech: Constructing Modernity in the Confucius Institutes", in *From Missionary Education to Confucius Institutes*, ed. Kyong-McClain and Lee, pp. 205–21.

[26] Idaho Freedom Foundation, "Social Justice Ideology in Idaho Higher Education" (2021): 16.

they constructed to pursue their goals."[27] As a state-funded cultural platform, the CI initiative is just one part of the more extensive knowledge transfer between China and the world, with operations differing from one location to another. Pace CI catered to the diverse populations in Manhattan, with its various cultural programmes tailored to the needs of different levels of Chinese language learners. Meanwhile, UICI, based at a reputable state university in the Pacific Northwest, had laid the foundation of Chinese language and cultural initiatives, and engaged public interest in East Asia. Both universities had utilised and leveraged CI resources to internationalise the discussions of China and Asia within their curricula and community outreach efforts.

However, trans-Pacific interactions are influenced by a combination of local, national and international forces. A positive takeaway from Pace CI and UICI is the essential role American faculty played in creating institutional safeguards and defending academic freedom on campuses. By involving faculty experts, CIs could evolve from being externally funded language providers into integrated faculty-managed units that promote a sophisticated study of China. In the future, we hope for more qualitative studies of individual CIs and ethnographic reflections on faculty and student experiences across various locations. Such efforts will help us appreciate the contributions of institutional actors and community partners in higher educational exchange.

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[27] Edward A. McCord, "Epilogue", in *From Missionary Education to Confucius Institutes*, ed. Kyong-McClain and Lee, p. 223.

Revised Gaming Legislation and Its Implications for Economic Diversification in Macao—An Early Assessment

LAI Kuanju, KWAN Fung and ZHANG Yang

This article examines the impact of Macao's revised gaming law (Amendment to Law No. 16/2001—Legal Framework for the Operations of Casino Games of Fortune, approved in June 2022) on the gambling industry, focusing on its implications for sustainable growth and economic diversification. The approved legislation introduces innovative business practices to address the needs of the evolving industry. Through analysis of the revised law and related documents, it is evident that implementing these practices, along with industry compliance and effective government enforcement, can potentially reduce reliance on a single market and steer casino tourism towards sustainable development, stability and resilience. In an early assessment of the diversification effects of the new regulation, the article highlights the immediate impacts on the labour market, the composition of tourist flows and the revenue mix of local gaming operators and illustrates the potentially transformative effects of the law for economic diversification in Macao.

INTRODUCTION

The Macao Special Administrative Region (SAR) is renowned for its dynamic casino industry, which has been the cornerstone of its economy for several decades. As the only region in China where casino gambling is legal, Macao has attracted substantial foreign investment since the gaming industry was liberalised in 2002.[1] This expansion

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[1] See "Casino Gaming in Macao: Evolution, Regulation and Challenges", at <https://scholars.law.unlv.edu/cgi/viewcontent.cgi?article=1069&context=glj> [10 April 2024].

has led to a boom in tourism and overall consumption, transforming Macao from a place of just half a million residents into a magnet for gamblers from across the region. Today, with the highest population density in the world surpassing that of Monaco, Hong Kong and Singapore, Macao stands as the world's top gaming jurisdiction and is recognised as a global leader in the casino industry, generating US$36.6 billion in gross gaming revenue in 2019.

Macao's economy is significantly skewed due to its heavy dependence on the gambling sector for tax revenue and employment.[2] For many years, the casino industry has been the primary source of income. By the end of 2019, approximately 39 per cent of the working population, totalling around 389,000 individuals, were employed in the gaming, tourism and hotel sectors.[3] That same year, the gaming sector alone contributed nearly 50 per cent of Macao's gross domestic product (GDP) and accounted for 21.8 per cent of total employment. The Macao government has increasingly depended on tax revenue from the gaming industry, which contributed 56 per cent (US$2.6 billion) of the total tax revenue (US$4.6 billion) in 2006. By 2019, this reliance had further grown to 84.4 per cent, leading to significant dependency on this sole tax source.[4] This underscores the oversized importance of the industry in the overall economy, which is vulnerable to economic volatility and external shocks.

Unlike other gaming jurisdictions, such as Las Vegas which is known for its daily entertainment and its international appeal, Macao's gaming industry relies heavily on cross-border tourism from Hong Kong and mainland China, with gaming revenue closely linked to tourist arrivals. Figure 1 demonstrates the strong correlation between gross gaming revenue (GGR) and the total number of tourist arrivals to the Macao SAR. In 2020, Macao's gaming industry faced significant challenges due to a prolonged tourism drought. The COVID-19 pandemic led to rolling lockdowns in mainland China, cross-border travel restrictions, and mandated quarantine and entry bans, severely limiting visitation to the city, and significantly impacting the gaming industry.

Figure 1 also highlights a sharp drop in gross gaming revenue, with revenues plummeting to US$7.6 billion in 2020, marking an 80.5 per cent decrease from the previous year. It went up to US$10.9 billion in 2021, but slid further to US$5.3 billion in 2022. These steep declines in gaming revenue, alongside a decrease in exports of services, weakened investment and diminished private consumption, led to a collapse in economic activities and a deep contraction from 2020 to 2022. The impact of these challenges on Macao's economy is evident in Figure 2, which demonstrates a significant shrinkage in GDP; in 2020, the SAR's GDP contracted by 54.2 per cent, significantly below its five-period moving average trend.

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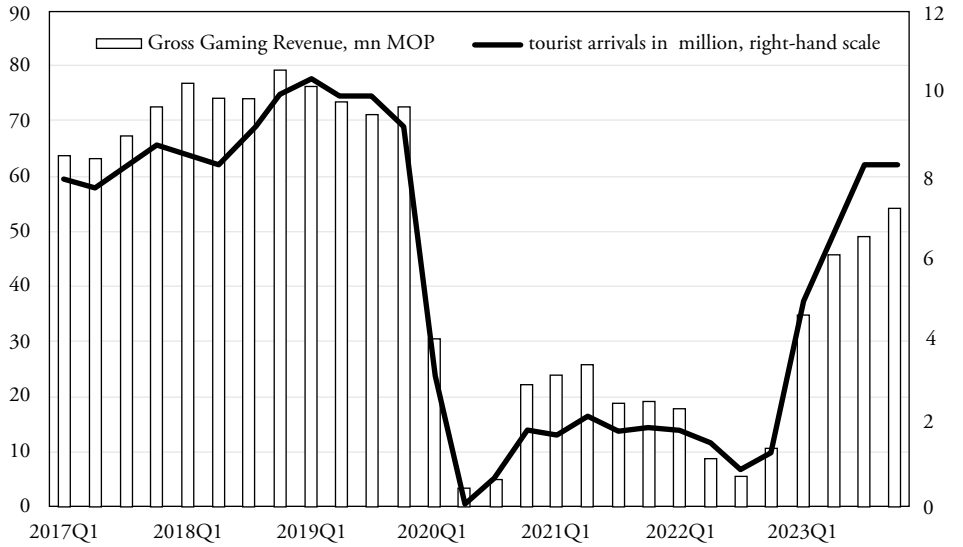
[2] Zhang Yang and Kwan Fung, "Macao's Gaming-led Prosperity and Prospects for Economic Diversification", *China: An International Journal* 7, no. 2 (2009): 288–319.

[3] Calculated based on data at Statistics and Census Service, the Government of the Macao Special Administrative Region, at <https://www.dsec.gov.mo/ts/#!/step2/PredefinedReport/zh-CN/10> [10 April 2024].

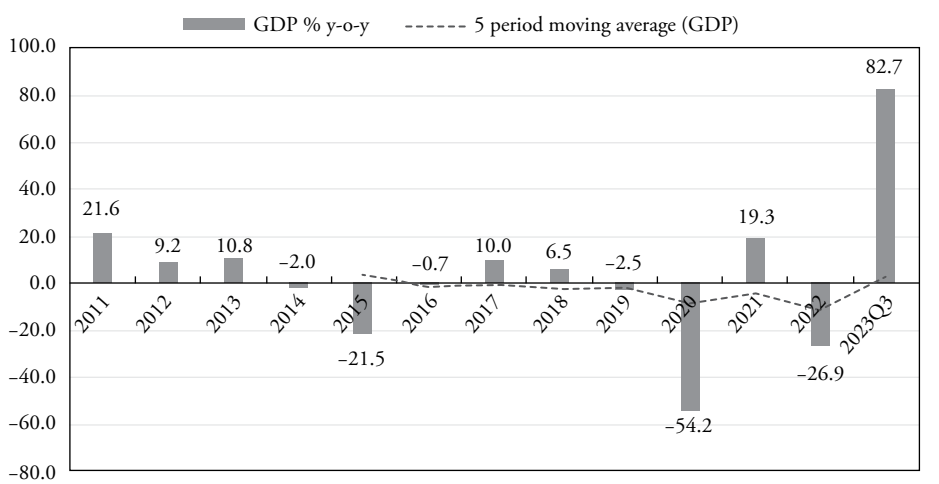
[4] Zhang Yang and Kwan Fung, "Financial Crisis Offers Respite for the Macao Economy", *China and the Global Economic Crisis* (February 2010): 159–78.

Figure 1. Gross Gaming Revenue and Tourist Arrivals in Macao (2017–23)



Note: MOP denotes Macao pataca (Macao's currency, exchange rate: US$1=MOP8).
Source: Government of the Macao Special Administrative Region (SAR), Statistics and Census Service (DSEC). Visitor Statistics Database from DSEC, at <https://www.dsec.gov.mo/en-US/Statistic?id=402> [7 November 2024]; Time Series Database from DSEC, at <https://www.dsec.gov.mo/en-US/Statistic?id=406> [7 November 2024].

Figure 2. Macao's Economic Growth (Year-on-year)

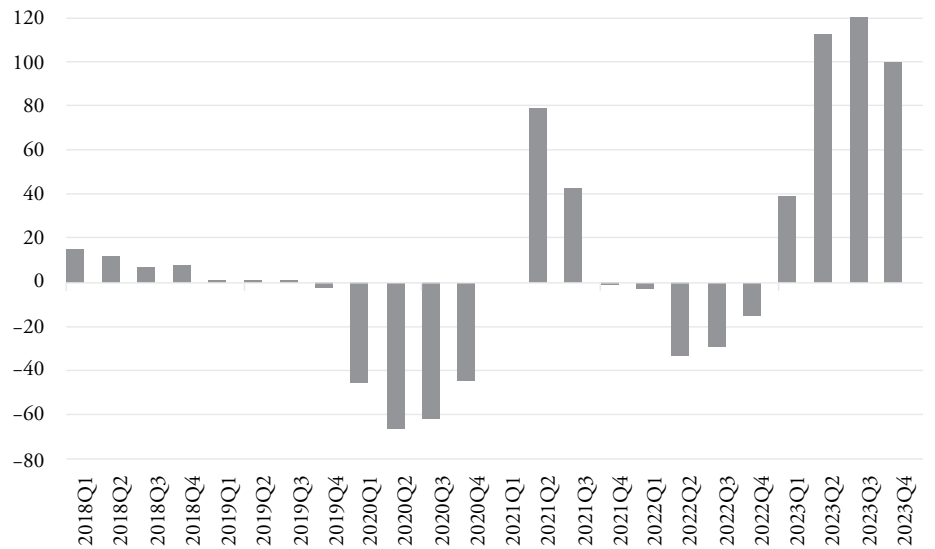


Source: Government of the Macao SAR, Statistics and Census Service (DSEC). Time Series Database from DSEC, at <https://www.dsec.gov.mo/en-US/Statistic?id=901> [7 November 2024].

Macao's excessive dependence on a single sector has rendered its economy highly volatile, resulting in considerable fluctuations in quarterly GDP growth. Figure 3 depicts these fluctuations, highlighting the extreme volatility. For example, in the second quarter of 2020, the economy suffered a sharp contraction of 66.4 per cent,

due primarily to the adverse impacts of the COVID-19 pandemic. Subsequent to the downturn, Macao's economy exhibited a remarkable rebound in the second quarter of 2021, achieving an impressive 80 per cent growth, which was attributed to the easing of travel restrictions, increased tourist arrivals and the gradual resumption of gaming activities.

Figure 3. Quarterly GDP Change in Real Terms



Source: Government of the Macao SAR, Statistics and Census Service (DSEC);
Time Series Database from DSEC, at <https://www.dsec.gov.mo/en-US/Statistic?id=901> [7 November 2024].

In recent years, the government of the Macao SAR has been actively pursuing economic diversification to reduce its heavy reliance on gaming and cross-border tourism. To address the evolving gambling landscape and improve casino governance, the Macao Legislative Assembly approved a highly anticipated new gaming bill on 21 June 2022[5]: Law No. 7/2022 (Amendment to Law No. 16/2001—Legal Framework for the Operations of Casino Games of Fortune). This legislation marks one of the most significant developments in public policy in the gaming industry and casino governance in the past two decades.

The new gaming bill replaces the previous law in force since 2001 (Law No. 16/2001). While the legal framework for the gaming sector remains largely unchanged, several revisions have been introduced. These revisions grant greater authority to the SAR authorities to enhance regulatory oversight and increase scrutiny of casino operators. Although existing literature has focused primarily on the scope of the revised

[5] The Government of the Macao Special Administrative Region (SAR), Amendment to Law No. 16/2001, "Legal System of Casino Lucky Betting Business", 22 June 2022, at <https://bo.io.gov.mo/bo/i/2022/25/lei07_cn.asp> [10 April 2024].

law and its implications for gaming operations and regulatory obligations, there is limited research on its wider implications for the economic structure and potential for diversification. This article aims to bridge this gap by providing new insights into the economic implications of the revised gaming law. By examining the immediate economic consequences of the new legislation and offering an early assessment of its effect, the article seeks to offer practical guidance to policymakers in other jurisdictions on formulating gaming policies and regulations. In addition, it sheds light on the economic aspects of gaming regulation and its potential impact on the overall economy.

BACKGROUND AND LITERATURE REVIEW

Gaming Law in the Macao SAR

Macao's gaming law No. 16/2001,[6] officially known as the "Legal Framework for the Operations of Casino Games of Fortune", is fundamental to regulating casino gaming activities in the region. Enacted on 26 December 2001, this law establishes the foundation for the regulatory and legal framework governing casino operations in Macao. Its primary objective, as outlined in Article 1, is to ensure the integrity, transparency and fairness of casino gaming operations. The law enacts guidelines for the licensing, operation and management of gaming establishments, providing a legal framework for authorisation, supervision and control. The Gaming Inspection and Coordination Bureau (DICJ)[7] is responsible for overseeing the gaming industry, ensuring compliance with regulations, granting and revoking licences, conducting inspections and implementing measures to maintain the integrity of casino operations.

The gaming law underwent significant revisions and amendments with the introduction of Law No. 7/2022. On 21 June 2022, the Macao Legislative Assembly approved this new gaming law to regulate the casino industry and foster a more stable and sustainable economic environment. The updated legislation encompasses various provisions related to licensing, taxation, capital requirements and other important aspects.

One notable change pertains to a limitation on the issuance of casino licences, now capped at six, with no provision for sub-concessionaires.[8] The DICJ serves as the regulatory body that oversees concessionaires and other related entities in the

[6] The Government of the Macao SAR, "Legal System of Casino Lucky Betting", 24 September 2001, at <https://bo.io.gov.mo/bo/i/2001/39/lei16_cn.asp> [27 March 2024].

[7] The Gaming Inspection and Coordination Bureau (Direcção de Inspecção e Coordenação de Jogos [DICJ]) is the regulatory body of gaming in Macao, and it provides guidance and assistance to the Chief Executive of the Macao SAR on the definition and execution of the economic policies for the operations of the casino games of fortune or other ways of gaming, parimutuels and gaming activities offered to the public. The DICJ drafts and implements new standards and regulations, and also conducts on-site inspections to ensure adherence to them.

[8] According to Article 7 of Law No. 16/2001, the right to operate games of fortune in casinos is reserved to the Macao SAR. Macao awards the right of exploitation of gaming to the private sector by way of a regime of concessions, evidenced by contracts.

casino industry. Under the new regulations, all casinos in Macao must apply for new licences, the approval of which will be subject to strict criteria and regulations. This requirement ensures that only reputable operators are permitted to conduct business in the SAR, thereby reducing the risk of money laundering and other financial crimes. Selected operators will be granted 10-year concessions, a reduction from the previous 20-year term. Furthermore, the chief executive holds the authority to extend the concession period for up to three years under justified circumstances and can revoke a gaming concession on grounds of national security or failure to meet tax obligations in a timely manner.

The recent amendments to the gaming law also introduce a slight increase in gaming taxes in Macao. The gaming tax rate, which was already the highest in Asia, has been raised from 39 per cent to 40 per cent, including a direct gaming tax of 35 per cent and an additional five per cent levy earmarked for social, cultural, educational, community activities and urban development. Such an adjustment in the tax regime aims to provide the Macao government with additional resources to roll out fiscal spending and other initiatives.

The new gaming law also offers tax breaks for casino operators. At the chief executive's discretion, operators that attract more foreign (non-mainland Chinese) gamblers to their casinos can receive tax reductions of up to five per cent.[9] This measure tends to align with the SAR government's efforts to reduce reliance on Chinese bettors and discourage cross-border gambling and gaming-related travel for mainland Chinese citizens. The introduction of tax breaks is reminiscent of the measures taken by policymakers in Singapore, another prominent gaming jurisdiction in Asia, to protect its citizens from the potential harms of gambling.

The revised gaming law also imposes stricter requirements on concessionaires. Under the revised legislation, concessionaires must be public companies limited by shares incorporated in Macao to ensure that the entities operating casinos there are under local jurisdiction and regulations. The new law also strengthens the capital and directorship requirements for licence holders, mandating that concessionaires maintain a registered capital of at least MOP5 billion (US$620 million) for the entire duration of their concession. The capital requirement ensures that concessionaires have sufficient financial resources to support their operations and fulfil obligations.

Moreover, the revised law tightens regulations on cross-ownership among casino operators. Concessionaires and shareholders holding more than five per cent of operator's capital, directly or indirectly, are prohibited from holding any capital in other concessionaires.[10] This measure is aimed at preventing concentration of ownership in order to promote fair competition within the industry.

[9] The Government of the Macao SAR, Administrative Regulation No. 54/2022.
[10] The Government of the Macao SAR, Art. 17 of Law No. 7/2022.

The new gaming law also addresses the issue of satellite casinos,[11] which has been a controversial topic. Under the new legislation, all casinos must be located on premises owned by concession holders. Even if satellite venues are allowed a three-year grace period during which they can be operated by a management entity, revenue-sharing arrangements are strictly prohibited. Instead, these management companies can charge fees for site services, but they are not permitted to accept deposits of casino chips and cash from others. In addition, they are prohibited from managing the financial activities, such as accounting or settlements, of satellite casinos.[12] They may collaborate only with one concessionaire and receive a flat commission rate.[13]

In relation to satellite casinos, junket promoters play a crucial role as intermediaries and marketing agents for casinos by recruiting and serving high-spending VIP gamblers. In addition to Law No. 7/2022, Law No. 16/2022[14] (Business Regime for Operations of Casino Games of Fortune 2022) was promulgated in December 2022 to further regulate gaming promoters and management companies. The revised gaming law transfers the authority for the issuance, renewal and cancellation of junket licences to the Secretary for Economy and Finance, which imposes stricter controls, rather than to the DICJ. Law No. 16/2022 states that junket operators must now provide a guarantee of MOP1.5 million for their licence, a significant increase from the previous requirement of MOP100,000 before 2023.

The revised law also includes measures to prevent money laundering and other financial crimes. Casinos are required to conduct thorough background checks on customers and to adhere to anti-money laundering and know-your-customer regulations, including reporting suspicious transactions. The measure ensures that any potentially fraudulent or suspicious activities are promptly identified and reported to the relevant authorities. Overall, the revision of Macao's legal framework for the gaming sector aligns with the broader development objectives of the Macao SAR government in its second Five-Year Plan for Economic and Social Development (2021–2025). The revised legislation reflects the government's commitment to find a balance between promoting economic growth and ensuring regulatory compliance. By enhancing industry transparency and integrity, these measures protect Macao's reputation as a premier global gaming destination while mitigating the risk of financial crimes. The government's proactive approach in implementing these regulations underscores its commitment to maintaining a secure and compliant gaming sector that meets international standards.

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[11] Without a legal definition of "satellite casino" under Macao's laws, "satellite casinos" often refer to the arrangements between a concession holder and a third-party owner, under which the hotel owner requests the use of a concessionaires' licence to run gaming operations in a designated area of the hotel or property.

[12] The Government of the Macao SAR, Art. 26(3) of Law No. 16/2022.

[13] The Government of the Macao SAR, Art. 26(1) of Law No. 16/2022.

[14] The Government of the Macao SAR, Entertainment Lucky Betting Business System, at <https://bo.io.gov.mo/bo/i/2022/51/lei16_cn.asp> [10 April 2024].

Literature on Gaming Law and Its Implications

Lee's "General Theory of Law and Development" suggests that a society's development and its economy/industries are influenced by the "regulatory impact mechanisms" of law.[15] The contents of laws and their implementation significantly affect the incentive/reactions of market participants, thus shaping the path of development of an industry and its interrelationship with the economy. On regulatory framework, Cabot, Lobo Vilela and Cortés compare the origins, history and benefits of the two primary approaches to gaming regulation—command-and-control and concession models—to analyse how they align with a government's public policies for legalising gambling and fostering the sustainability and economic growth of the industry.[16] The concession model allows the government to tailor its regulatory oversight not only to the circumstances of its jurisdiction but also to the strengths and weaknesses of the concession holder. However, the concession model has disadvantages when the jurisdiction has several casinos in a competitive market. Eadington notes that the promulgation of the Corporate Gaming Act in 1969 by the Nevada government had generated a new "legal climate for American casinos".[17]

Ho and Phillips' research provides insights into the recent amendments to Macao's gaming laws and their implications for gaming operators.[18] Their work emphasises the necessity for stronger legal frameworks to effectively oversee the various groups involved in the casino industry and the importance of regulatory measures in maintaining transparency, integrity and compliance within the sector.

Wang and Yan specifically investigate Macao's gaming concession system in their work.[19] They propose two options for reform: first, replacing the concession system with a licensing system that removes restrictions on the number of concessionaires and the duration of concessions; or second, modifying the existing concession system to change the number of concessionaires, concession periods and selection methods for concessionaires.

McCartney's study analyses key articles in Macao's new gaming legislation and discusses the implications of the legislative framework for the city's casino industry.[20] McCartney delves into the issues addressed by the new laws and their potential impact

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[15] Lee Yong-Shik, "General Theory of Law and Development", *Cornell International Law Journal* 50, no. 3 (2017): 415–72

[16] Anthony Cabot, António Lobo Vilela and Pedro Cortés, "Comparing Gaming Regulatory Systems in Civil and Common Law Countries: How Different Approaches Can Achieve the Same Policy Goals", *UNLV Gaming Law Journal* 13, no. 2 (2023): 135–96.

[17] William R. Eadington, "The Economics of Casino Gambling", *Journal of Economic Perspectives* 13, no. 3 (1999): 173–92.

[18] Ho Hong-Wai and Jenny Phillips, "MACAU 2.0: New Gaming Law and its Implications for Casino Market", *Gaming Law Review* 27, no. 3 (2023): 106–16.

[19] Wang Changbin and Yan Libo, "The Gaming Concession System in Macao: Reform or Retain?", *Asian Education and Development Studies* 13, no. 2 (20 March 2024): 168–78.

[20] Glenn McCartney, "Macau's New Gaming Legislation and Casino Post COVID-19 Recovery Considerations", *Gaming Law Review* 26, no. 8 (2022): 425–9.

on the city's path to recovery, offering valuable insights into the recent legal reforms and their implications for the gaming sector.

Siu employs an institutional analysis to dissect the relationship between legal contents/practices and the development of casino tourism in the SAR.[21] The study elucidates the role and impacts of the Macanese legal system in advancing casino tourism, the evolving industrial organisation and business practices, and the industry's rapid expansion in the first two decades of the 21st century.

Collectively, these studies offer a comprehensive overview of regulatory frameworks and legal reforms in Macao's gaming sector. They emphasise the importance of robust regulatory systems, analyse specific aspects of the legal framework and discuss the implications of legal reforms on various industry stakeholders. While these insights contribute to a deeper understanding of the SAR's casino industry, the broader implications of the new gaming laws on Macao's economic structure and the prospect for economic diversification remain under-researched.

IMPLICATIONS FOR ECONOMIC DIVERSIFICATION

Over the past two decades, Macao's economy has been predominantly driven by the gaming sector, which has significantly contributed to its GDP. However, due to the inherent volatility and susceptibility of the local economy to external shocks, Macao has recognised the importance of economic diversification and reducing its dependence on gaming. The SAR's focus on diversification is evident in the current gaming concession contracts.[22] The introduction of new gaming legislation provides insight into the future, not only for the gaming industry but also for the SAR's broader economy.

The revised legislation signifies a shift towards a more diversified economy, with a clear emphasis on promoting the growth of industries beyond gaming. While it should be acknowledged that significant changes to the overall economy will take time to materialise under the new law, it is crucial to consider the wider implications of this legislation in fostering diversity. To better understand these implications, the authors explore several related dimensions in the following sections.

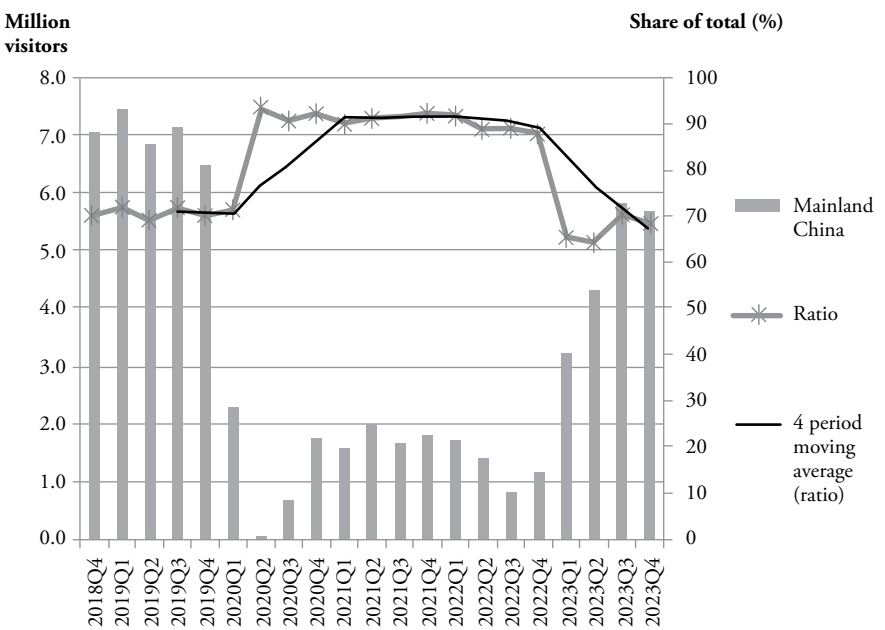
Export Partners and Source of Visitors

A more diversified economy will engage in trade with multiple countries and have a broader range of export and import partners. In Macao, gaming activities are considered exports of services as gamblers in the SAR are primarily tourists. Article 1.0 of the new gaming legislation stipulates the promotion of adequate diversification and sustainable economic development in the city. For example, the legislation includes a provision for a five per cent tax break, which can be granted if casino

[21] Ricardo C.S. Siu, "Back to the Future: Constructing Macao as a World-class Casino Tourism Destination under New Gaming Laws", *Gaming Law Review* 27, no. 7 (2023): 326–42.
[22] Ho and Phillips, "MACAU 2.0".

operators succeed in attracting visitors from new markets, in order to address the disproportionate reliance on arrivals from mainland China. Before 2019, mainland Chinese visitors accounted for over 70 per cent of total visitation, which increased to 90 per cent when the borders were closed to regional and international travellers. Upon renewing their concessions, the six incumbent gaming operators revealed their plan to establish new overseas offices in locations such as Singapore, Thailand and South Korea, and to launch various marketing initiatives targeting visitors from countries like Japan, Indonesia, Malaysia, India, the Philippines and Vietnam. The five per cent tax break incentivises concessionaires to seek international market opportunities beyond China, reducing their over-reliance on Chinese players. Since the implementation of the new gaming law in 2023, there has been a noticeable decline in the percentage of mainland Chinese tourist arrivals, falling below the four-period moving average trend (Figure 4).

Figure 4. Visitors from Mainland China (2018–23)

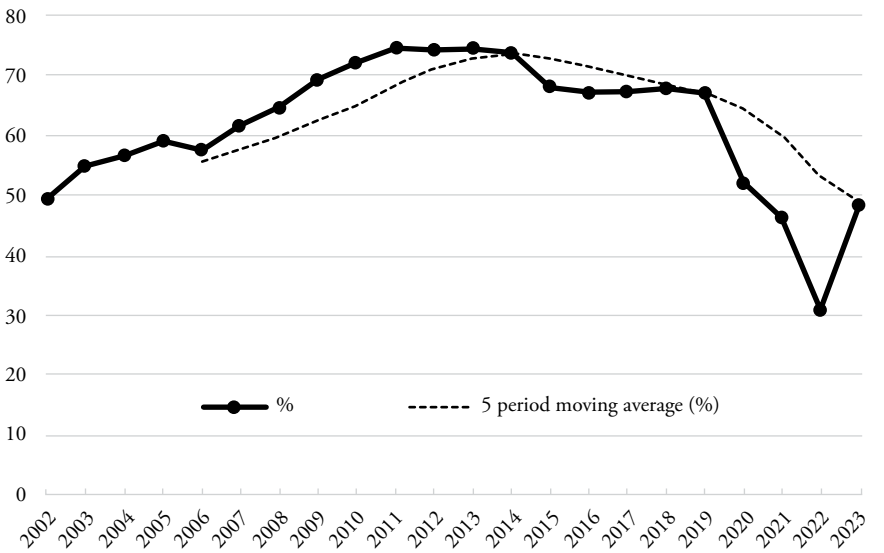


Source: Government of the Macao SAR, Statistics and Census Service (DSEC).
Visitor Statistics Database from DSEC, at <https://www.dsec.gov.mo/en-US/Statistic?id=402> [7 November 2024].

The composition of service exports is an important factor to consider, particularly given the prominent role of gaming as a major GDP component. A diverse range of export products indicates economic diversification, whereas a heavy reliance on a few products suggests a lack. When analysing the contribution of gaming to the SAR's service exports, the data in Figure 5 shows that gaming accounted for less than 50 per cent of the total service exports. This share is similar to the level seen when Macao's gaming sector opened in 2002, demonstrating a notable rebound from the impact of

the COVID-19 pandemic in 2022. However, the share of gaming remains below the five-period moving average trend, indicating a relatively reduced role for gaming activities in the export of services.

Figure 5. Share of Gaming in Total Export of Services (%)



Source: Government of the Macao SAR, Statistics and Census Service (DSEC). Time Series Database from DSEC, at <https://www.dsec.gov.mo/en-US/Statistic?id=901> [7 November 2024].

Gaming-to-non-gaming Mix

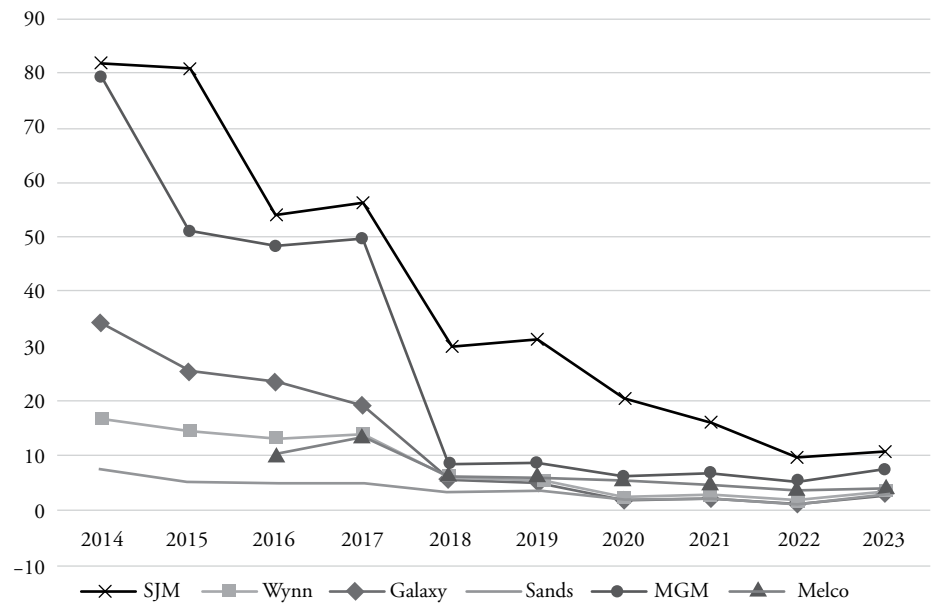
Promoting non-gaming activities can create alternative sources of revenue, taxation and employment, making the gaming-to-non-gaming revenue mix a valuable indicator of diversification. The revised gaming law emphasises the promotion of non-gaming projects.

To support Macao's economic diversification, concessionaires are contractually required to launch various capital-intensive non-gaming projects to meet these demands and consumer needs. In November 2022, the Macao SAR government renewed the concession periods for the city's six incumbent gambling concessionaires for another 10 years. As their new contracts came into effect on 1 January 2023, the six reappointed gaming concessionaires—Galaxy Entertainment, Melco Resorts, MGM China, Sands China, SJM (Sociedade de Jogos de Macau) Holdings and Wynn Macao—have all pledged their commitment to launching non-gaming offerings such as the development of theme parks, medical clinics, gardens and museums. These six gaming operators have pledged to invest nearly US$15 billion (MOP118.8 billion), with more than 90 per cent of the investment directed towards developing non-gaming projects and exploring overseas markets. The Appendix summarises the operators' investment plan in non-gaming facilities and their commitment to attracting more non-locals. The

investment in non-gaming attractions and amenities aims to diversify leisure offerings, potentially creating new sources of tourism and entertainment in the SAR.

On the basis of the financial statements of the six gaming operators, the authors analysed the contribution of non-gaming revenue. Figure 6 indicates a declining trend in the gaming-to-non-gaming revenue ratio among local casino operators from 2014 to 2022.The ratio for 2023, following the implementation of the new gaming law, remained similar to the previous year. This can be attributed to the resurgence of gaming income in 2023 when the region reported US$22.7 billion in gross gaming revenue, a staggering annual increase of 334 per cent after the end of the strict zero-COVID restrictions. Analysts at Morgan Stanley predicted that the gaming companies will significantly increase their non-gaming investments starting in 2024 onwards.[23]

Figure 6. Ratio of Gaming-to-non-gaming Revenue



Sources: Compiled by the authors based on the annual financial statements of the incumbent six gaming firms.

Looking ahead, the authors believe that mandatory investments in non-gaming projects will help attract a wider range of visitors to the SAR, including those interested in entertainment, shopping, cultural experiences and conventions. Although there may be short-term financial sacrifices, these efforts are essential for the long-term sustainable development of the gaming industry. Furthermore, they will enhance

[23] Wilhelm Kelsey, "Analysts: Macau GGR to Top $22bln by 2027, Trigger 20% Non-gaming Investment | AGB", *Asia Gaming Brief*, 21 December 2022, at <https://agbrief.com/news/macau/21/12/2022/analysts-macau-ggr-to-top-22bln-by-2027-trigger-20-non-gaming-investment/#:~:text=Also%20regarding%20the%20investments%20pledged%20by%20the%20companies%2C,still%20be%20a%20recovering%20year%20%28instead%20of%20normalized%29> [5 May 2024].

the SAR's position as a prominent global tourism destination, leading to the healthy and sustainable growth of the leisure industry. By diversifying its tourism offerings, the Macao SAR can reduce its dependence on gaming revenue, and build a more balanced and resilient economy.

Distribution of Employment

In addition, the revised law encourages gaming operators to collaborate with local small- and medium-sized enterprises (SMEs). Such collaboration can foster innovation, entrepreneurship and the development of new industries. By leveraging the resources and expertise of gaming operators, SMEs in Macao have the opportunity to expand their reach and contribute to the diversification of the local economy.

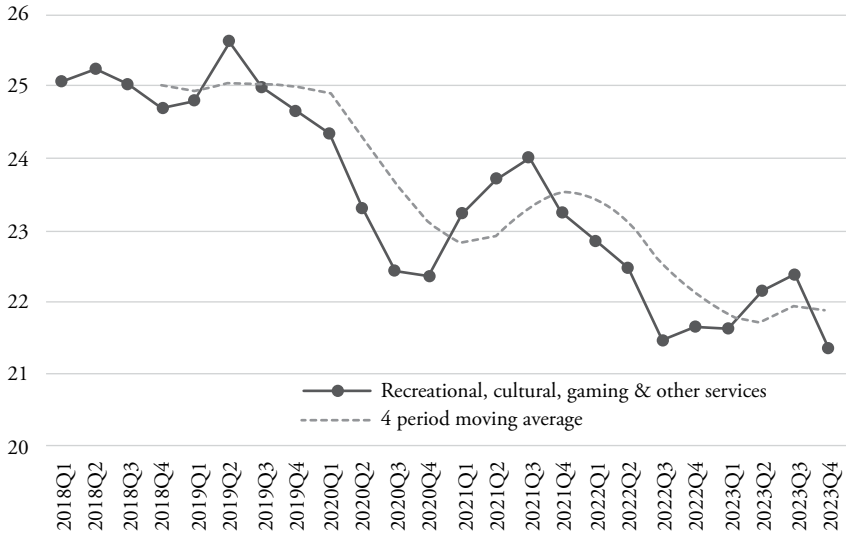
Moreover, the new gaming law's emphasis on regulatory oversight and compliance also contributes to economic diversification. Strict procedures for due diligence, reporting of suspicious transactions and regular reviews of concessionaires' compliance with the concession contract enhance transparency and integrity within the industry. This can attract international investors and businesses seeking a secure and well-regulated market to operate in. By promoting a favourable business environment, the SAR can encourage the growth of industries beyond gaming, such as finance, technology and entertainment.

To assess the economic structure, one can examine the distribution of employment across sectors and industries. A diversified economy is characterised by a substantial portion of the workforce being employed in different sectors, thus reducing reliance on a single industry. Figure 7 shows that by the end of 2023, approximately 21 per cent of employment was concentrated in gaming-related sectors. This is slightly lower than the percentage recorded in the last quarter of 2022, falling below the four-period moving average trend. This finding provides evidence that Macao's labour market is becoming less dependent on the gaming sector.

Macao's new gaming law is expected to positively impact the region's economy in both the short and long term. In the short term, the law aims to diversify visitor sources, promote non-gaming initiatives, foster collaboration with local SMEs, prioritise responsible gaming practices and enhance regulatory oversight. These measures are anticipated to increase government revenue by regulating the casino industry and building a more stable and sustainable economic environment. The additional tax revenue can then be invested in various sectors and projects to reduce reliance on gaming and promote a more diversified economy.

Looking to the future, the new legislation is projected to attract new investments, opening up opportunities for economic growth and diversification in the SAR. The government is already exploring industries such as tourism, finance and technology to further diversify the economy. The supportive environment provided by the gaming laws will facilitate the development of these industries, ultimately reducing the city's reliance on the gaming sector and contributing to the establishment of a resilient and diversified economy.

Figure 7. Employment Share of Recreational, Cultural, Gaming and Other Services (%)



Source: Government of Macao SAR, Statistics and Census Service (DSEC). Time Series Database from DSEC, at <https://www.dsec.gov.mo/ts/#!/step2/en-US> [7 November 2024].

CONCLUSION

In recent years, Macao has faced numerous challenges, including increased regional competition, declining revenues and a shortage of skilled workers. The COVID-19 crisis further highlighted the risks of over-reliance on a single industry and emphasised the need for diversified economic growth sources. To address these challenges, the Macao SAR government introduced new policies and regulations, in particular amendments to the gaming law in 2022.

The new gaming law, implemented with the start of new 10-year concessions, will profoundly impact not only the gaming landscape but also the SAR's overall economic development. This article demonstrates that these regulations, if effectively implemented, may have the potential to facilitate economic diversification and foster sustainable development in the long term. First, the new gaming law emphasises the importance of attracting tourists from diverse markets beyond China. By diversifying its tourist base, Macao can alleviate its vulnerability to fluctuations in a single market, and thereby instil resilience and sustainability in its tourism industry. Second, the revised law encourages the development of non-gaming components within integrated resorts, offering entertainment, cultural and leisure facilities to attract a broader range of visitors beyond traditional gamblers. By diversifying the offerings and attracting tourists interested in non-gaming activities, the SAR aims to reduce reliance on the gaming sector. Third, the new gaming law encourages partnerships and collaborations between the gaming industry and other sectors, promoting cooperation with industries such as finance, technology, tourism and entertainment. By nurturing these partnerships, Macao strives to create a more diversified and integrated economy that is less reliant

on a single sector. Observations of shifts in tourist composition and local labour market structure have signalled decreased dependence on the gaming industry. These early developments suggest that positive progress towards a more diversified economy has been made, with the long-run impact of the gaming legislation contingent on effective implementation and corporate response to the incentives provided.

The Macao SAR's diversification plan is a long-term endeavour, requiring time for full realisation. Among the challenges faced in achieving sustainable and equitable growth for the region's small-scale open economy, addressing the shortage of local talent and bridging the skills gap will be costly and time-consuming yet essential for nurturing and attracting talent to support the growth of non-gaming industries. Additionally, improvements in financial sector regulation and ICT (information and communications technology) infrastructure are necessary to develop industries beyond gaming.

While therefore Macao's path towards reducing its reliance on the gaming sector will be a gradual and long-term endeavour, the new gaming legislation marks a significant step towards economic diversification, signalling a proactive approach from policymakers committed to building a more balanced and sustainable economy. Their efforts are showing positive effects. To fully realise the potential of this transition, concerted efforts from all stakeholders are required. Policymakers should prioritise effective implementation of the new law, ensuring an environment conducive to attracting investments in non-gaming sectors and tourists from new markets. Through strategic planning and strong determination, the SAR can achieve sustainable economic growth and prosperity in the future.

Caution is necessary when extrapolating findings from this initial assessment to a comprehensive policy evaluation. Future research should focus on extended post-policy-change data periods to analyse the policy effects in the long term. Using methodologies like event studies or a difference-in-differences approach could help to isolate the policy effect from other confounding factors and to establish potential causal relationships. While some evidence of immediate impacts exists, the long-term implications of the new gaming law for diversification warrant closer scrutiny. Future studies incorporating additional data and statistical analysis could monitor the new law's implementation and examine the compliance practices of casino operators to provide a more comprehensive understanding of the policy's effects. Given the persistent obstacles in attaining economic diversification in the SAR despite governmental efforts, investigating whether the new gaming regulations will prove more successful in comparison with previous initiatives targeting economic diversification will make a worthwhile research topic.

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APPENDIX
Investment Pledges by Macao's Six Incumbent Gaming Operators

Gaming operator	Total investment in the next 10 years	Investment in non-gaming activities	Efforts made to attract foreign visitors	Initiatives launched to develop non-gaming activities
MGM China Holdings Ltd.	MOP16.7 billion	MOP15.0 billion (90%)	• increase the overseas sales network to 30 locations and double the number of sales staff; • host events in its overseas sales networks in Asia and the Middle East; • provide direct transportation, including charter flights.	• bring in more world-class entertainment shows, and develop more art-related projects; • launch an "incubator base for arts and culture business industries"; • develop an "Urban Oasis" project, to provide one-stop services combining wellness and medical offerings, including medical hydrotherapy, diet therapy, leisure and health management, medical tourism and health assessment.
Galaxy Entertainment Group (GEG)	MOP28.4 billion	MOP15.0 billion (96%)	• set up new overseas offices in Singapore, Thailand and South Korea, and launch various marketing initiatives targeting markets like Japan, Indonesia, Malaysia, India, the Philippines and Vietnam.	• develop a 61,000-square-metre "first-and-only high-tech amusement park", incorporating multimedia, interactive and multisensory technologies; • accelerate the development plan for a 4,000-seat music and performing arts theatre; • build an art museum and auxiliary facilities of about 7,000 square metres that will incorporate immersive technologies, in addition to the existing GalaxyArt venue.
Sands China Ltd.	MOP30 billion	MOP27.8 billion (93%)	• increase its network of international sales offices in Asia, the United States and Europe; • hold an annual large-scale international business exchange event—"Macao Showcase"—at Marina Bay Sands in Singapore to elevate the exposure of the SAR as a MICE (meetings, incentives, conferences and exhibitions) tourism destination.	• develop a new MICE facility of 18,000 square metres next to its existing Cotai Expo in The Venetian Macao; • transform its existing garden, Le Jardin, on the south of its property The Londoner Macao to "a new and internationally unique" garden-themed destination of 50,000 square metres; • upgrade the "Cotai Arena" to host more international entertainment and sporting events.

APPENDIX (*cont'd*)

Gaming operator	Total investment in the next 10 years	Investment in non-gaming activities	Efforts made to attract foreign visitors	Initiatives launched to develop non-gaming activities
Melco Resorts and Entertainment Ltd.	MOP11.82 billion	MOP10 billion (85%)	• allocate MOP1.91 billion to increasing foreign tourist arrivals and the MICE business; • leverage its MICE representative offices in Hong Kong, Singapore, Manila and Cyprus to attract international clients; • use its private jets to organise trips for high-end international travellers to the city.	• open a skateboard park at Studio City in 2024; organise an international skateboard competition in 2025, and a technology, innovation and sustainability competition for the Greater Bay Area also in 2024; • upgraded the existing Studio City Water Park and opened an indoor water park in 2023; • open an iRad Polyclinic that offers medical diagnostic and imaging services like magnetic resonance imaging (MRI), computer tomography scan (CT Scan), 2D and 3D mammography, ultrasound and X-rays in 2024; • open a new Cineplex at Studio City in 2024 with six theatres, one IMAX theatre, and five Director's Club theatres; open the Splendors of China Museum in 2025.
Wynn Macao Ltd.	MOP17.73 billion	MOP16.5 billion (93%)	• leverage the other operations of Wynn Resorts in Las Vegas, Boston and the United Arab Emirates, and expand its sales office network and representative agencies in overseas markets like Japan, Singapore, Vietnam, Indonesia, the Philippines, South Korea, Thailand, Malaysia, Canada, and the United States; • develop regional and international partnerships with airlines that service both Macao and Hong Kong, as well as explore charter and private flight services.	• develop a new theatre that is "set to be the home of a unique spectacle show that Wynn will develop especially for Macao in support of world-class entertainment shows"; • develop "a themed, interactive and immersive centre" and an "event and entertainment centre" that supports MICE events, sports events and entertainment shows; • establish an outdoor sculpture garden to house works of international artists and interactive installations; • develop a new international gastronomy destination dining venue for culinary events and gatherings.

(*cont'd overleaf*)

APPENDIX (*cont'd*)

Gaming operator	Total investment in the next 10 years	Investment in non-gaming activities	Efforts made to attract foreign visitors	Initiatives launched to develop non-gaming activities
SJM Holdings Ltd	MOP14.03 billion	MOP12 billion (86%)	• establish overseas office; • organise more sports events such as the Macao Golf Open Championships, tennis competitions and martial arts activities.	• invest MOP2.5 billion to renovate its two flagship properties (Lisboa and Grand Lisboa) to accommodate more non-gaming offerings; • revitalise and renovate its now-defunct floating casino, Macao Palace, to be a home to dining and retail offerings and a gaming history museum; • develop two more museums (one is an art and culture pavilion, and the other museum will showcase Macao's gaming history with exhibits of tools and equipment used in gambling); • add a new garden-themed venue to cater for small and medium-sized events;. • add 15 new dining outlets in the Grand Lisboa Palace and Grand Lisboa in the future.

Source: Compiled by the authors.

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