

APPENDIX A

Table A1: City codes for figures

City	Code	City	Code	City	Code	City	Code	City	Code
Shanghai	SH	Haimen	HM	Hangzhou	HZ	Jinhua	JH	Ma'anshan	MAS
Nanjing	NJ	Lianyungang	LYG	Jiande	JD	Lanxi	LX	Huaibei	HB
Wuxi	WX	Huaian	HA	Fuyang	FUY	Yiwu	YW	Tongling	TL
Jiangyin	JY	Yancheng	YC	Ningbo	NB	Dongyang	DOY	Anqing	AQ
Yixing	YX	Dongtai	DT	Yuyao	YUY	Yongkang	YK	Tongcheng	TGC
Xuzhou	XZ	Dafeng	DF	Cixi	CX	Quzhou	QZ	Huangshan	HS
Xinyi	XY	Yangzhou	YZ	Fenghua	FH	Jiangshan	JGS	Fuyang	FY
Pizhou	PZ	Yizheng	YIZ	Wenzhou	WZ	Zhoushan	ZS	Jieshou	JS
Changzhou	CZ	Gaoyou	GY	Ruian	RA	Taizhou (Zhejiang)	TAZ	Bozhou	BZ
Liyang	LY	Zhenjiang	ZJ	Leqing	LQ	Linhai	LH	Suzhou (Anhui)	SUZ
Suzhou (Jiangsu)	SZ	Danyang	DY	Jiaxing	JX	Wenling	WL	Chuzhou	CUZ

Changshu	CS	Yangzhong	YGZ	Haining	HNG	Lishui	LS	Tianchang	TAC
Zhangjiagang	ZJG	Jurong	JR	Pinghu	PH	Longquan	LGQ	Mingguang	MG
Kunshan	KS	Taizhou (Jiangsu)	TZ	Tongxiang	TGX	Hefei	HF	Lu'an	LA
Taicang	TC	Xinghua	XH	Huzhou	HUZ	Chaohu	CH	Chizhou	CIZ
Nantong	NT	Taixing	TX	Shaoxing	SX	Wuhu	WH	Xuancheng	XC
Qidong	QD	Jingjiang	JJ	Zhuji	ZUJ	Bengbu	BB	Ningguo	NG
Rugao	RG	Suqian	SQ	Shengzhou	SGZ	Huainan	HN		

Table A2: Central state–led regional plan codes for figure 1d and table 4

Central state–led regional plan	Code
Plan for Western Taiwan Straits Economic Zone	PWTSEZ
Plan for Sunan Modernization Demonstration Area	PSMDA
Proposal for the pilot comprehensive reform on transformation and upgrading of Hangzhou urban economic circle	PHUEC
Plan for International Tourism and Culture Demonstration Region in Southern Anhui	PITCDRSA
Plan for Jiangsu Coastal Development	PJCD
Plan for Industrial Transfer Demonstration Zone of the Wanjiang City Belt	PITDZWCB
Regional Plan for the Yangtze River Delta	RPYRD
Plan for Dabie Mountains Revolutionary Revitalization & Development	PDMRRD
Regional Plan for Nanjing Metropolitan	RPNM
Plan for Zhejiang Ocean Economic Development Demonstration Zone	PZOEDDZ
Plan for Central Plains Economic Region	PCPER

APPENDIX B

B1: The procedure of checking the robustness of community detection results

To check the robustness of the detection results, two other state-of-art community detection algorithms, i.e., Walktrap (Pons & Latapy, 2005) and MultiLevel (Blondel, Guillaume, Lambiotte, & Lefebvre, 2008), are used and their results are compared. The test of similarity is achieved by performing the normalized mutual information (NMI) procedure (Ana & Jain, 2003), which is used for comparing clustering results. It is obtained by:

$$S(P_a, P_b) = 2 \frac{I(P_a; P_b)}{H(P_a) + H(P_b)}$$

where $S(P_a, P_b)$ represents the similarity of the two partitions (P_a and P_b) of community, ranging from 0 (absolute dissimilarity) to 1 (perfect similarity); $I(P_a, P_b)$ is the mutual information between the two partitions, $H(P_a)$ and $H(P_b)$ represent the entropies of both partitions (for more details on the calculation of $I(P_a, P_b)$, $H(P_a)$, and $H(P_b)$, see Ana & Jain, 2003).

Table B2: Results of NMI measurement comparing the generated partition with the outcomes obtained by Walktrap and MultiLevel algorithms

Methods	First step detection	Second step detection			
		Central Sub- region	North Sub- region	West Sub- region	South Sub- region
MultiLevel	0.89	1.00	1.00	1.00	0.84
Walktrap	0.78	1.00	0.75	0.58	1.00

References:

Ana, L., & Jain, A. K. (2003). Robust data clustering. *Proceedings IEEE Conference on Computer Vision and Pattern Recognition*, 2, 128-136. doi: 10.1109/CVPR.2003.1211462

Pons, P., & Latapy, M. (2006). Computing communities in large networks using random walks. *Journal of Graph Algorithms and Applications*, 10, 191-218. Retrieved from <https://arxiv.org/abs/physics/0512106>

Blondel, V. D., Guillaume, J. L., Lambiotte, R., & Lefebvre, E. (2008). Fast unfolding of communities in large networks. *Journal of statistical mechanics: theory and experiment*, 10, P10008. Retrieved from <http://arxiv.org/pdf/0803.0476.pdf>

APPENDIX C

The CPER was originally proposed by the Henan provincial government in search of a series of privileges conferred by the central government in areas such as tax, investment, and land utilization. Meanwhile, the central government also intended to cultivate inland economic growth poles for balanced development and in response to the diminishing economic activity on the coast. Against this backdrop, the concept of CPER was written into China's 12th Five-Year Plan (2011-2015) in 2011 (available at http://www.gov.cn/2011lh/content_1825838.htm), through which the construction of the Henan-centred CPER is officially viewed as a national development strategy. However, the geographic scope of the CPER was not delineated at that stage. In the stage of plan formulation dominated by the NDRC, the Anhui provincial government had actively applied to add its northern cities to this ambitious plan¹. The considerations that lay behind the application is that North Anhui has been the less developed part of Anhui Province, and this problem became more serious after the release of Plan of the Industrial Transfer Demonstration Zone of the Wanjiang City Belt, through which cities in South Anhui received a significant amount of resources and opportunities for further development. The Anhui provincial government thus tried to balance intra-provincial development inequality by merging its northern cities into the CPER. Similarly, other neighbouring Provinces such as Shandong, Shanxi, and Hebei also actively applied to add their regions to this plan. As a result of the interest coordination among the different Provinces, the CPER scope was finally delineated to cover all of Henan and parts of the Anhui, Shandong and Shanxi Provinces, in which northern Anhui is entirely included. In conclusion, the delineated scope of CPER is more properly the product of a series of

balances of administrative interests to reduce regional disparities rather than depending on the degree of regional integration.

Note

1 ‘They (the North Anhui cities) had tried every possible means to make the cut (to be added into the CPER)’, a source with the Anhui Provincial Development and Reform Commission said in an interview with Xin’an Evening News (a mainstream newspaper in Anhui Province), cited from <http://english.anhuinews.com/system/2012/08/08/005133056.shtml>.