

Supporting Information (SI)

Regional Differences and Spatial-temporal Evolution Characteristics of Digital Economy Development in Yangtze River Economic Belt

Jiayi Chen ^a, Chaozhu Hu ^a and Youxi Luo ^{a,*}

^a School of Science, Hubei University of Technology, Wuhan 430068, China

*Corresponding Authors: E-mail: 20051038@hbut.edu.cn

Table S1. The indicators of digital economy evaluation system with the corresponding weight.

dimensions		Weight	Specific index	Weight
First-level	Second-level			
Digital Infrastructure	Infrastructure	0.208	Number of Domain Names (units /10 million people)	0.036
			Number of Web Pages (units / 10 million people)	0.079
			Internet Broadband Access Ports (units /10 million people)	0.020
			Number of IPv4 Addresses (units / 10 million people)	0.042
			Length of Long-distance Optical Cable (km / 10 million people)	0.031
	Operational Level	0.092	Mobile Internet Users (10k households)	0.027
			Mobile Phone Penetration Rate (units / 100 people)	0.024
			Mobile Internet Access Traffic (10k GB)	0.020
			Internet Broadband Access Users (10k households)	0.021
Development of Digital Economic Innovation	Input	0.104	CMTED R&D Expenditure Internal Spending / CMTED Total Output Value (%)	0.021
			CMTED R&D Personnel Number / CMTED Workforce (%)	0.026
			CMTED New Product Development Expenditure / CMTED Total Output Value (%)	0.018
			CMTED Technology Introduction and Renovation Expenditure / CMTED Total Output Value (%)	0.039
			Transaction Volume of the Technology Market (10000 CNY)	0.042
	Output	0.094	Per Capita Annual Effective Patent Applications Granted (pieces / person-year)	0.052
			Number of Foreign-invested Enterprises in the Region (units)	0.061
			Registered Capital of Foreign-invested Enterprises/GDP (%)	0.043
			CMTED foreign investment/ Total foreign investment (%)	0.033
Social Livelihood Benefits	International Cooperation	0.170	CMTED total exports / CMTED total output value (%)	0.034
			Number of Terminals in Public Library Electronic Reading Rooms (units)	0.011
			Comprehensive Population Coverage Rate of Broadcasting Programs (%)	0.003
			E-commerce sales volume (billion CNY)	0.039
	Digital Life	0.114	Per Capita Express Deliveries (items per person)	0.061
			Fixed Asset Investment Intensity in Agriculture, Forestry, Animal Husbandry, and Fishery (billion CNY per thousand hectares)	0.032
			Number of Agricultural Meteorological Observation Stations (units)	0.013
			Proportion of Administrative Villages with Postal Services (%)	0.001
	Digital Agriculture	0.093	Degree of Agricultural Mechanization (10k KW/km ²)	0.047
			Number of Electronic Publications Published (units)	0.040
			Quantity of Electronic Publications Published (10000 sheets)	0.076
			Retail Price Index of Books, Newspapers, Magazines, and Electronic Publications (-)	0.009

Table S2. Calculated digital economy index from 2012 to 2021

	Index	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Lower Reaches	Shanghai	31.752	34.364	36.371	38.856	42.236	42.053	43.079	44.032	46.732	49.364
	Jiangsu	27.645	31.078	30.065	32.502	33.404	35.385	36.677	39.892	40.370	43.997
	Zhejiang	24.462	25.526	28.503	30.456	32.911	36.631	37.994	41.020	44.004	46.985
	Anhui	10.619	10.725	9.682	11.287	10.826	12.972	14.192	12.815	15.257	17.285
Lower Reaches_Avg		25.423	26.155	28.275	29.844	31.760	32.986	34.440	36.591	39.408	25.423
Middle Reaches	Jiangxi	8.398	8.103	8.126	8.230	8.435	9.753	10.338	11.049	11.471	12.123
	Hubei	12.959	13.755	15.463	15.455	14.811	16.293	17.146	18.018	18.405	19.975
	Hunan	20.308	13.080	13.136	13.552	16.758	18.986	18.762	17.979	20.698	23.041
Middle Reaches_Avg		11.646	12.242	12.412	13.335	15.011	15.415	15.682	16.858	18.380	11.646
Upper Reaches	Chongqing	5.666	7.953	8.813	10.404	10.070	10.430	11.526	11.713	11.575	11.896
	Sichuan	14.259	13.652	16.004	15.670	16.750	17.459	20.937	23.286	25.999	26.392
	Guizhou	12.225	14.895	11.728	9.765	10.039	8.922	10.883	12.496	12.251	13.449
	Yunnan	7.404	7.940	8.029	8.238	8.286	8.782	9.281	9.876	9.718	10.874
Upper Reaches_Avg		11.110	11.144	11.019	11.286	11.398	13.157	14.343	14.886	15.653	11.110
Average Score		15.973	16.461	16.902	17.674	18.593	19.788	20.983	22.016	23.317	25.034