



December 2021

Mastercard Caixin BBD China New Economy Index

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Overview

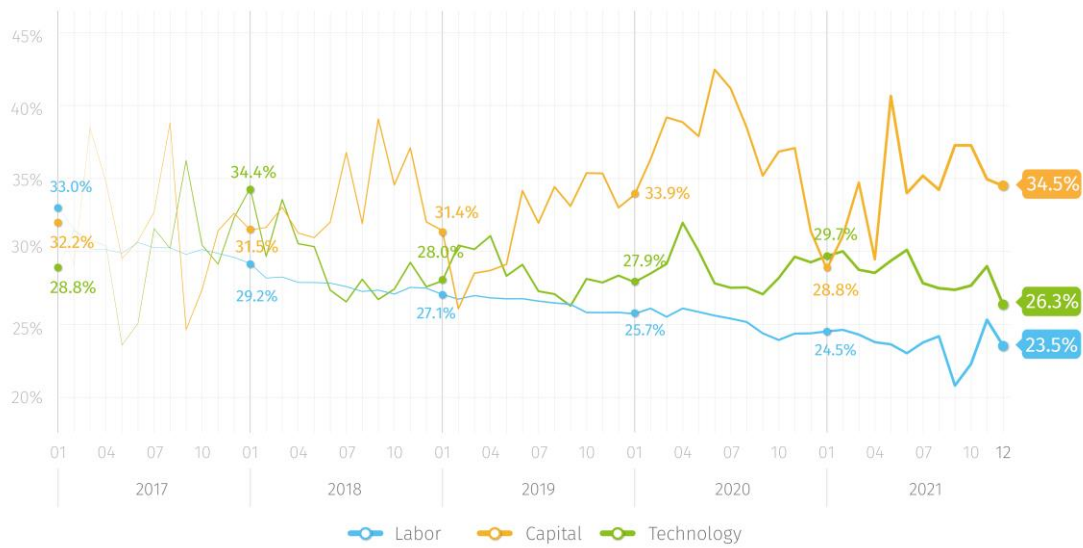
In December 2021, the Mastercard Caixin BBD New Economy Index (NEI) reading came in at 28.1, indicating that the New Economy accounted for 28.1% of overall economic input activities that month, down 1.5 ppts from November 2021 (Chart 1). After the outbreak of COVID-19 in early 2020, NEI kept going up for several consecutive months. However, with the post pandemic economic recovery triggered in the second quarter of 2020, the old economy showed stronger growth, suppressing the new economy.

Chart 1: China Monthly New Economy Index



The NEI includes labor, capital and technology inputs that account for 40%, 35% and 25% of the total weights of the index, respectively. The decreasing NEI was attributed to the decrease in labor inputs. Labor input index decreased to 23.5 this month, with 1.8 MoM decrease. Capital input declined to 34.5 this month, with 0.5 MoM decrease. Technology input index came in at 26.3 this month, with 2.7 MoM decrease (Chart 2). Taking the weights into account, percentage changes in labor, capital and technology inputs were -0.7, -0.2, and -0.7 ppts, respectively. The net NEI change was -1.5 ppts in total.

Chart 2: NEI Primary Input Index



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The labor input index is composites of two sub-indicators: the ratio of income of employees and the ratio of post in new economy industries. This month, the ratio of salary and ratio of employment of enterprises in new economy industries decreased significantly.

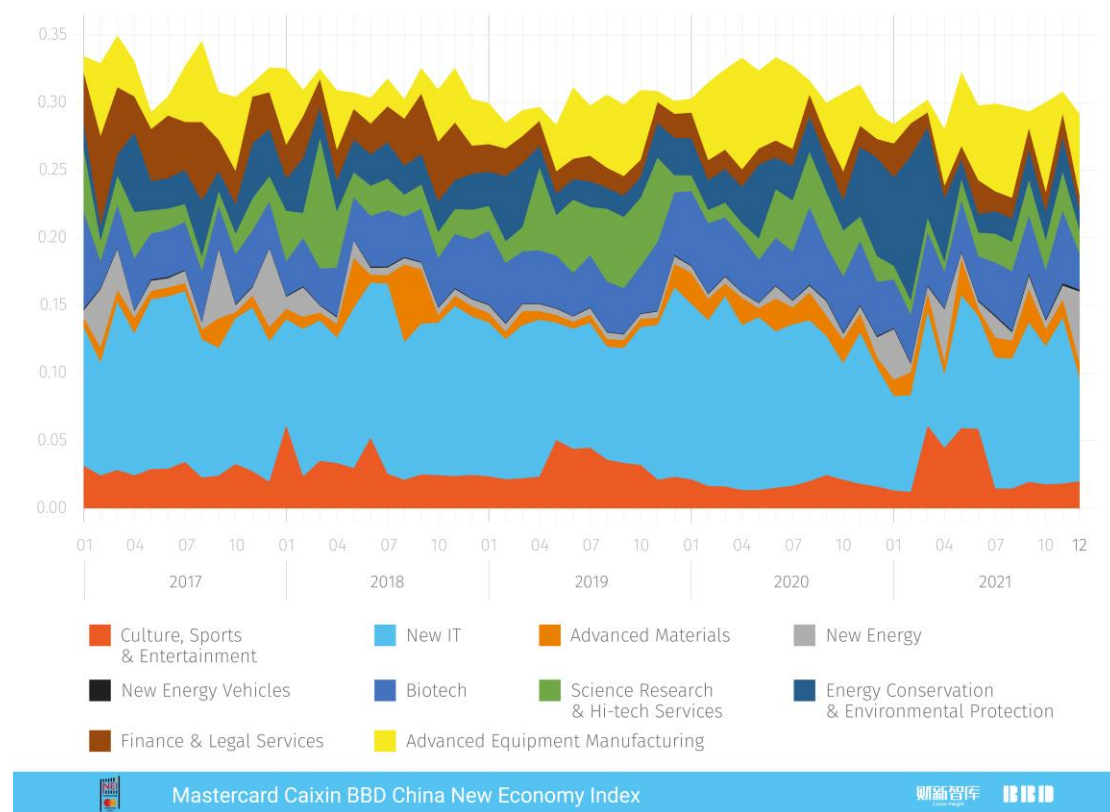
New Economy Sector

New economy is defined as following: 1) human capital intensive, technology intensive and capital light, 2) sustainable rapid growth, and 3) in line with the strategic new industries defined by the government. New economy covers 10 categories (Energy Conservation & Environmental Protection, New IT, Biotech, Advanced Equipment Manufacturing, New Energy, Advanced Materials, New Energy Vehicles, Science Research and Hi-tech Services, Finance & Legal Services, Culture, Sports & Entertainment) and 145 sub-industries. Please refer to our previous reports (March 2016 and March 2017) for the list of NEI sectors.

As for sectors, the New IT industry contributed 7.3 ppts to New Economy Index, significantly lower than that in November (Chart 3). However, the share of Advanced Equipment Manufacturing increased significantly, up 4.2 ppts from November. Detailed data indicated that, the increase in Advanced Equipment Manufacturing industry was due to higher established

enterprises and venture capital ratio.

Chart 3: New Economy Sector Contribution Breakdown



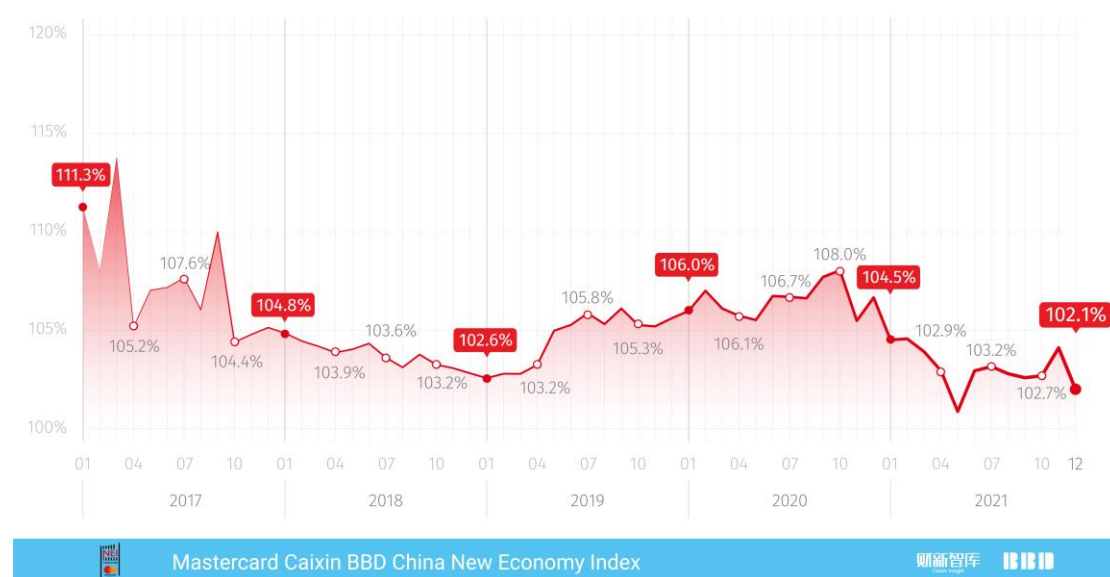
New Economy Employment

In December 2021, the average monthly entry-level salary of the New Economy was RMB 13,125, increasing from last month's level of RMB 13,112 (Chart 4). And the entry-level salary premium of the New Economy which is the ratio of average entry salary level of New Economy to that of the whole economy, decreased to 2.1%, compared to 3.9% in November 2021 (Chart 5). The wages are compiled from online websites of career platforms and recruitment services including 51job and Zhaopin, as well as other sites that list job openings.

Chart 4: New Economy Avg. Monthly Entry-Level Salaries



Chart 5: New Economy Entry-Level Salary Premium over Economy-wide Entry Level Salaries



Economic Trend Based on Keywords

This month, we compared the change of keywords of new enterprises in the past two years (Chart 6-1, Chart 6-2). The biggest difference between 2021 and 2020 lied in the resurging consumption and quick shrinking real estate and education. The keywords related to daily consumption increased rapidly in 2021, such as general merchandise, daily necessities, supermarket, clothes and aquatic product. While keywords of training, school, real estate,

education and broker declined significantly, especially for training and school, decreasing by 64% and 59% respectively in 2021.

Chart 6-1: Change of Keywords of New Enterprises (Top10)

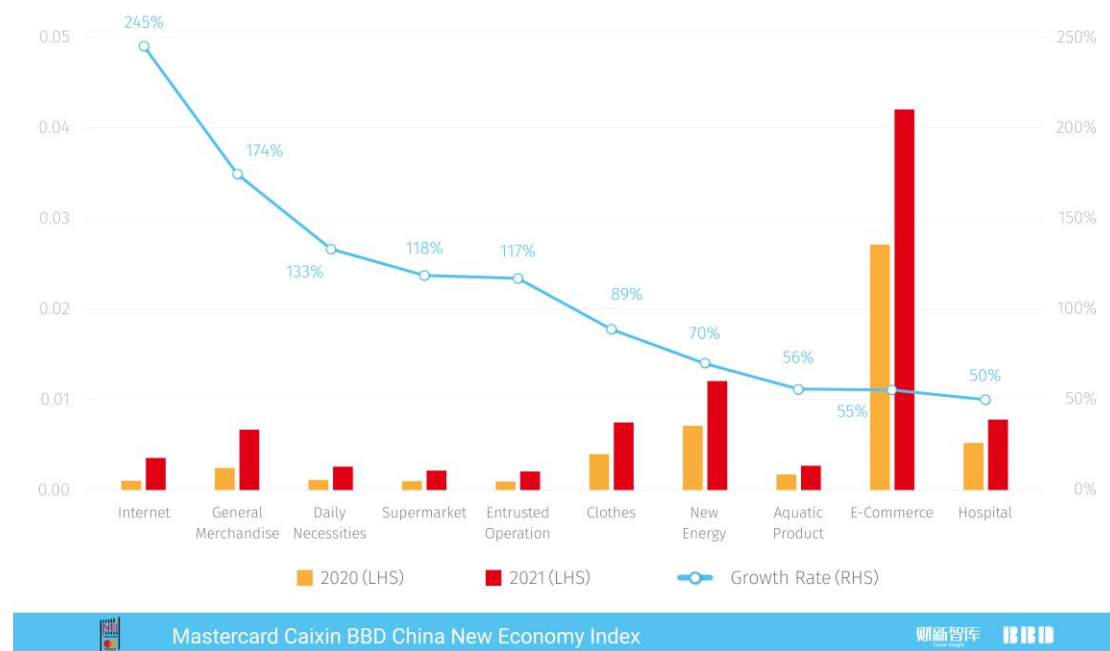
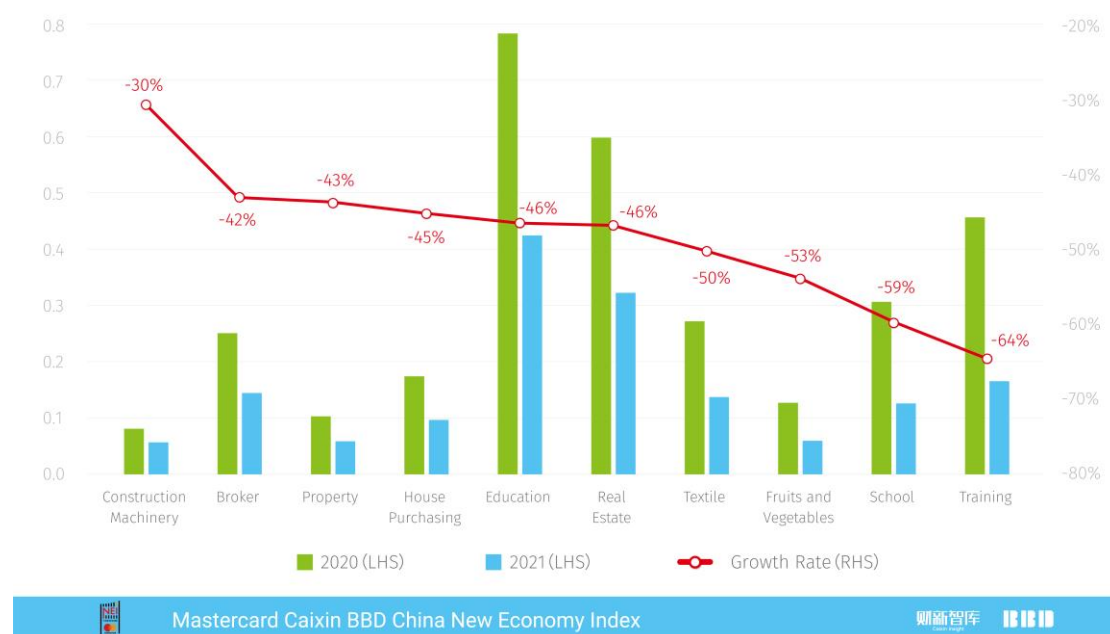


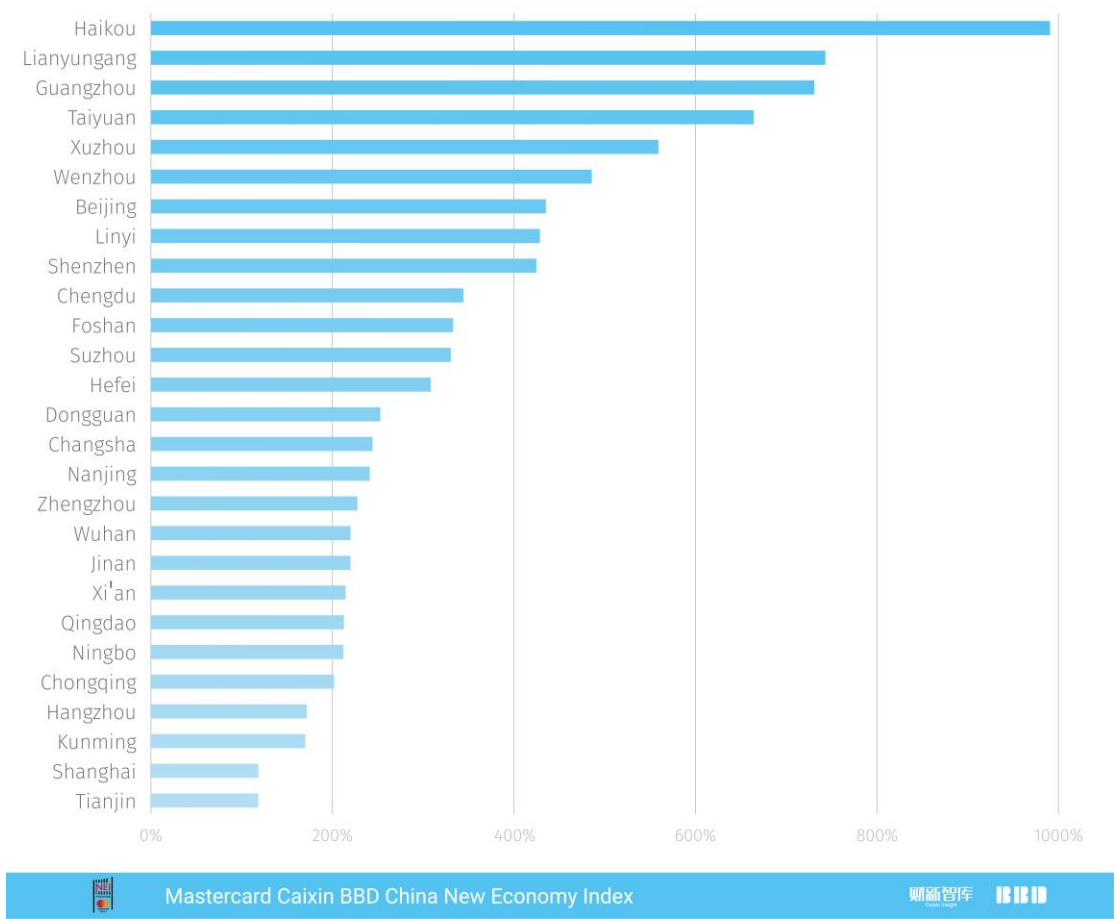
Chart 6-2: Change of Keywords of New Enterprises (Bottom10)



New enterprises established in 2021 were unevenly distributed in China (Chart 7). We defined the ratio of new enterprises established in 2021 to that in 2015 as the growth rate of new enterprises. Data showed the new enterprises in Haikou, Lianyungang and Guangzhou grew

fastest, increasing 7 to 10 times compared to that in 2015. In contrast, the growth rate of new enterprises in Tianjin and Shanghai was stagnant, with no significant progress in the past years.

Chart 7: The Growth Rate of New Enterprises by Region



Tracked was the structural changes in the keywords of patent applications in the past five years (Chart 8-1, Chart 8-2). From 2016 to 2021, the fastest-growing patent keywords included storage media, nursing, disinfection, electronic equipment and protection, reflecting the development of digital economy. Meanwhile, the keywords related to artificial intelligence, such as studying and classification, experienced fast growth as well, more than double than that in 2016. The key words with significant decline were fabric, electric vehicle, purifier and bicycle. With the effective control of air quality and the fast development of electric vehicles and shared bicycles, related keywords decreased by varying degrees. The changes of these industries were reflected in these patent keywords.

Chart 8-1: Change of Keywords of Patent Application (Top15)

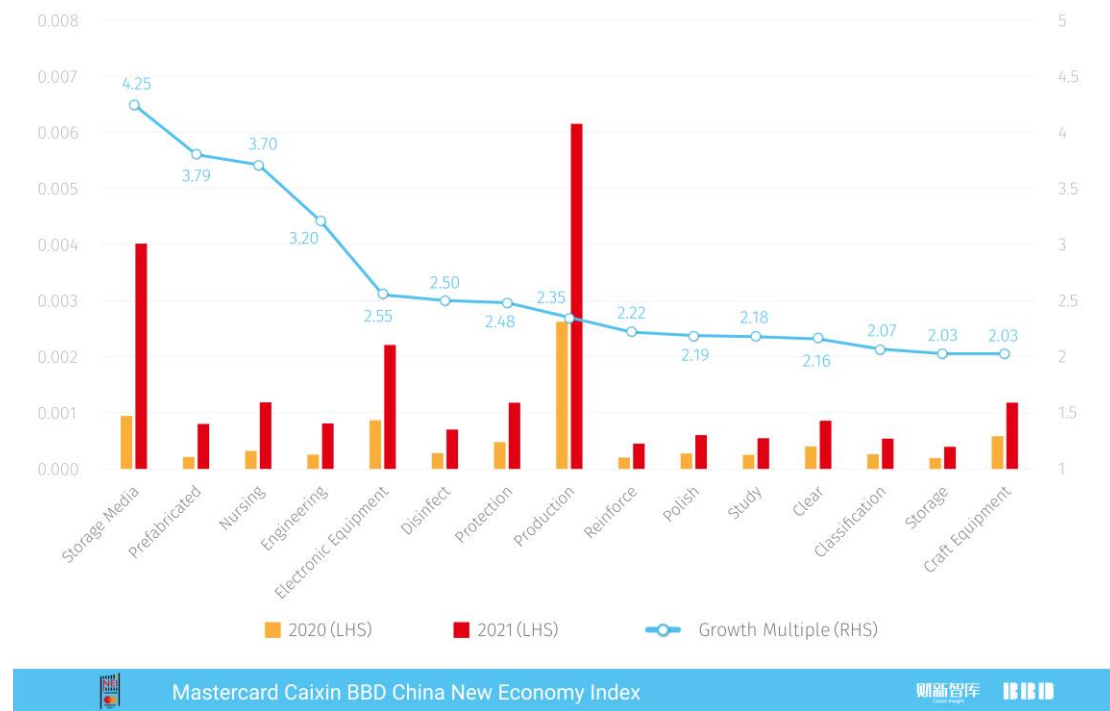


Chart 8-2: Change of Keywords of Patent Application (Bottom15)

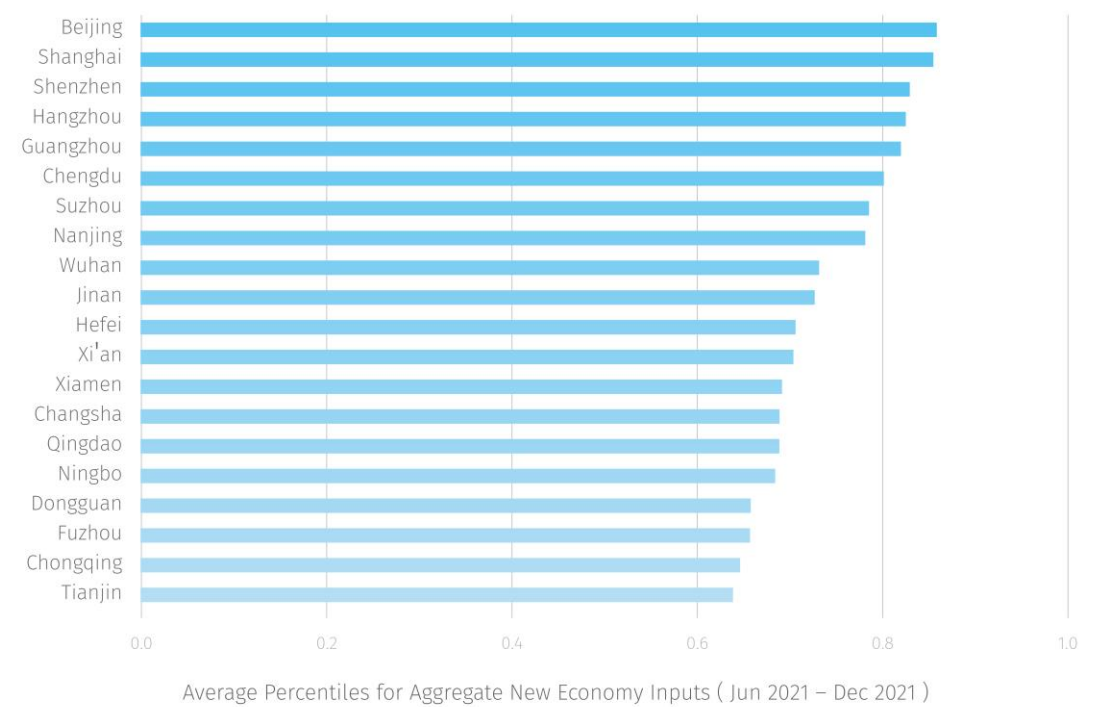


City Rankings of the New Economy

Overall New Economy Rankings are based on a weighted average of the percentile ranks of indicators for the city in the past six months. The top twenty cities were shown in Chart 9. In

December, the top five cities were Beijing, Shanghai, Shenzhen, Hangzhou and Guangzhou.

Chart 9: China's Top 20 Cities Ranked by New Economy Sector Output





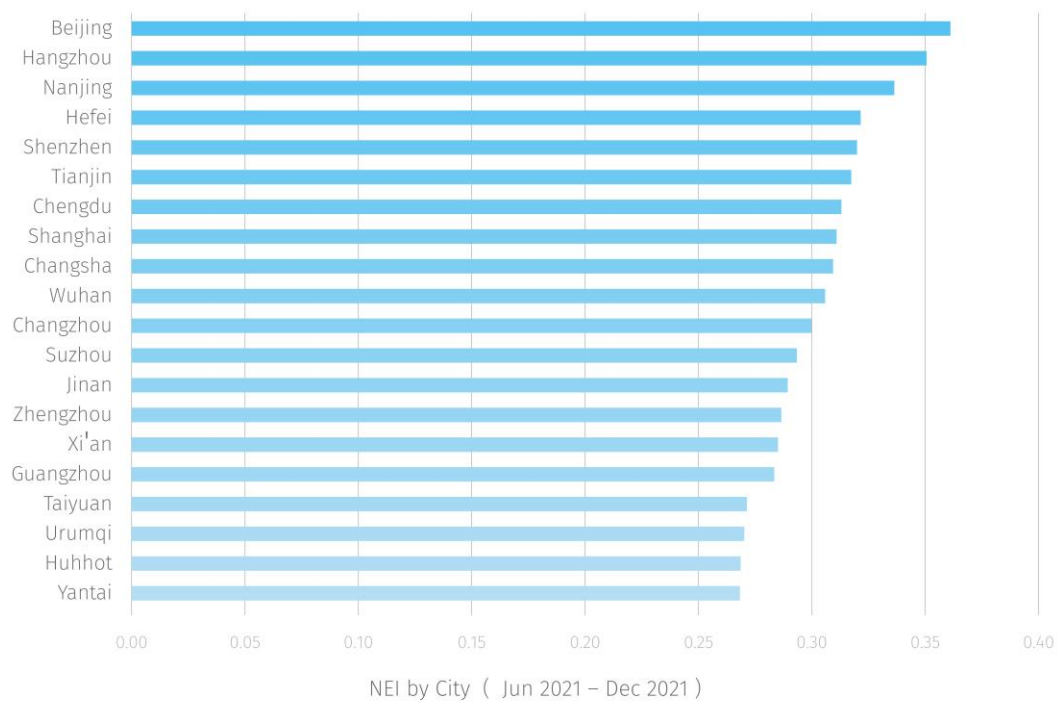
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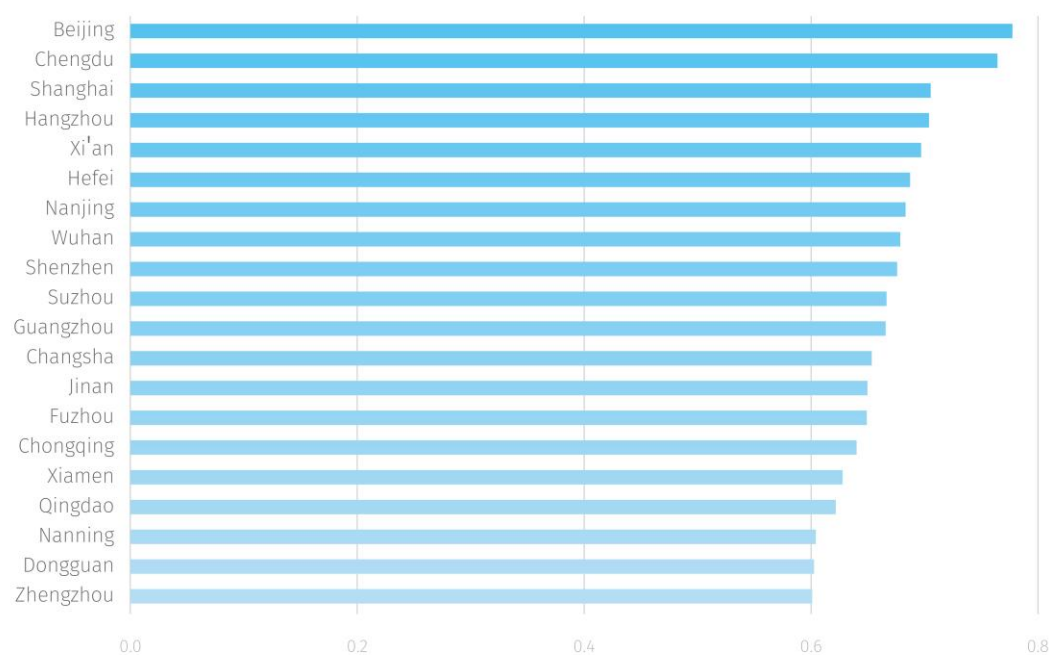
Chart 10 showed the average NEI city rankings between June 2021 and December 2021. The top five cities were Beijing, Hangzhou, Nanjing, Hefei and Shenzhen.

Chart 10: China's Top 20 Cities Ranked by Average NEI



In addition, we showed the city rankings adjusted by living cost by taking housing price, minimum wage and disposable income per capita into account (Chart 11). After the adjustment, the top five cities were Beijing, Chengdu, Shanghai, Hangzhou and Xi'an, following by Hefei and Nanjing.

Chart 11: China's Top 20 Cities Ranked by New Economy Sector Output Adjusted by Living Cost



Average Percentiles for Aggregate New Economy Inputs Adjusted by Living Cost (Jun 2021 – Dec 2021)

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The Mastercard Caixin BBD China New Economy Index is the fruit of a research partnership between Caixin Insight Group and BBD, in collaboration with the National Development School, Peking University. The subject of a year of research, the NEI was first publically released on March 2, 2016 and will be issued the 2nd of every month at 10:00am China Standard Time.

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