February 2022

Mastercard Caixin BBD China New Economy Index

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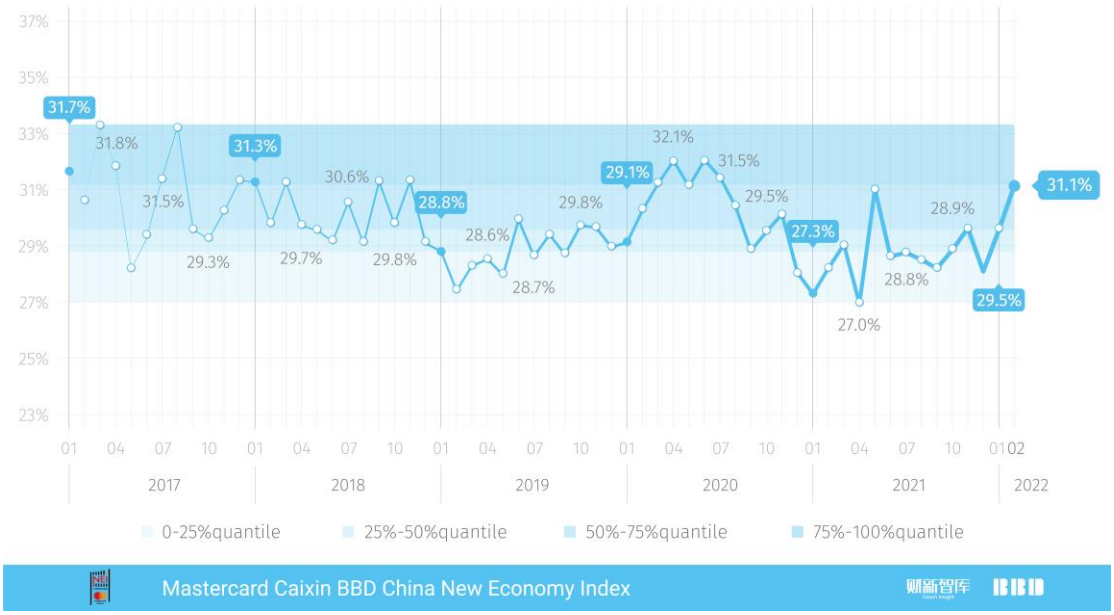
Overview

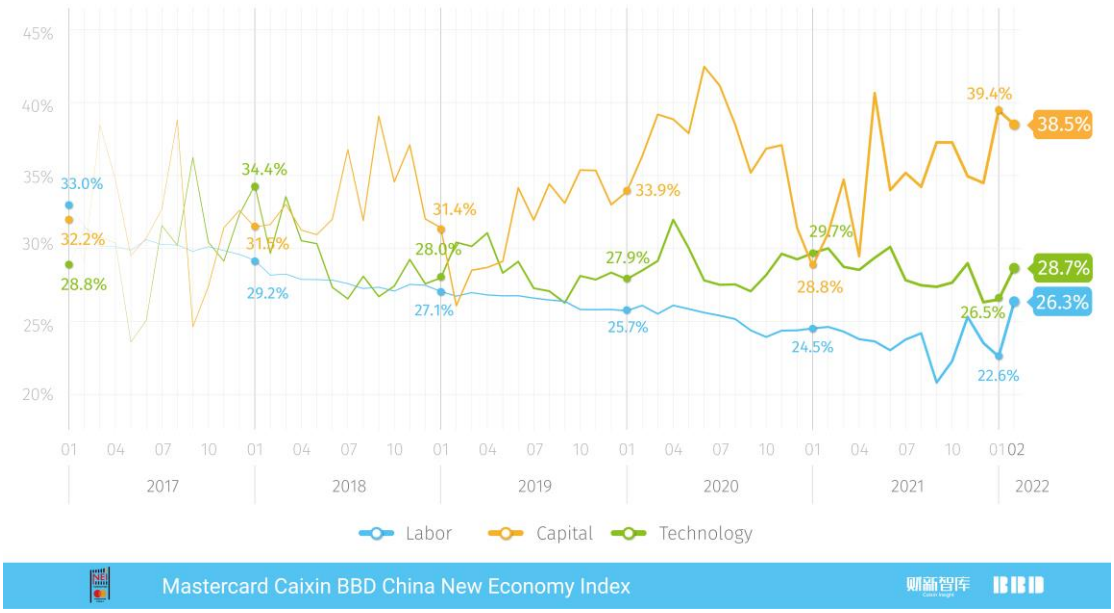
In February 2022, the Mastercard Caixin BBD New Economy Index (NEI) reading came in at 31.1, indicating that the New Economy accounted for 31.1% of overall economic input activities that month, up 1.6 ppts from January 2022 (Chart 1). After the outbreak of COVID-19 in early 2020, NEI kept going up for 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 increasing NEI was attributed to the increase in labor inputs. Capital input decreased to 38.5 this month, with 0.9 MoM decrease. Labor input index increased to 26.3 this month, with 3.7 MoM increase. Technology input index came in at 28.7 this month, with 2.2 MoM increase (Chart 2). Taking the weights into account, percentage changes in labor, capital and technology inputs were 1.5, -0.3, and 0.5 ppts, respectively. The net NEI change was 1.6 ppts in total.

Chart 2: NEI Primary Input Index



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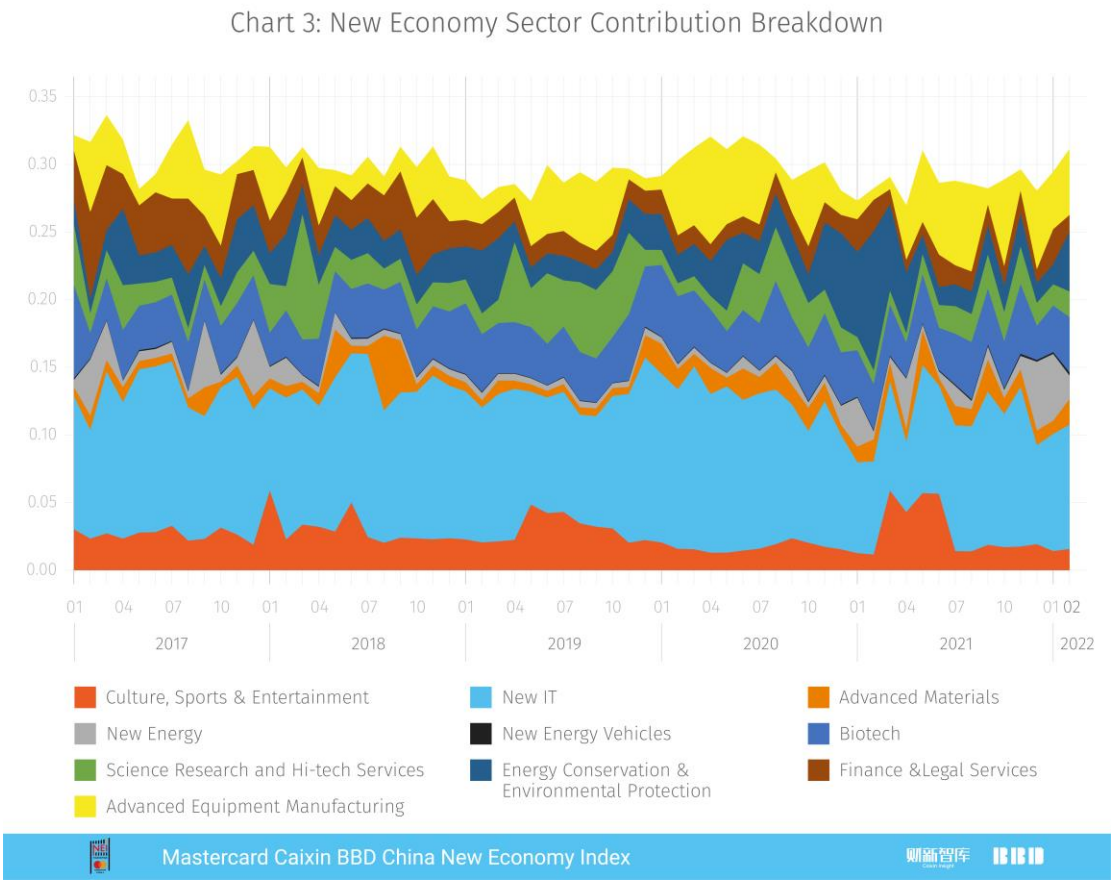
The labor input index is composites of two sub-indicators: the ratio of income of employees and the ratio of post in new economy industries. This month, the ratio of salary and ratio of employment of enterprises in new economy industries increased significantly.

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 9.2 ppts to New Economy Index, significantly higher than that in January (Chart 3). However, the share of Energy Conservation & Environmental Protection increased significantly, up 2.9 ppts from January. Detailed data indicated that, the increase in Energy Conservation & Environmental Protection was due to

higher invitation to tender of enterprises.



New Economy Employment

In February 2022, the average monthly entry-level salary of the New Economy was RMB 13,254, increasing from last month's level of RMB 13,242 (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, increased to 4.6%, compared to 4.2% in January 2022 (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

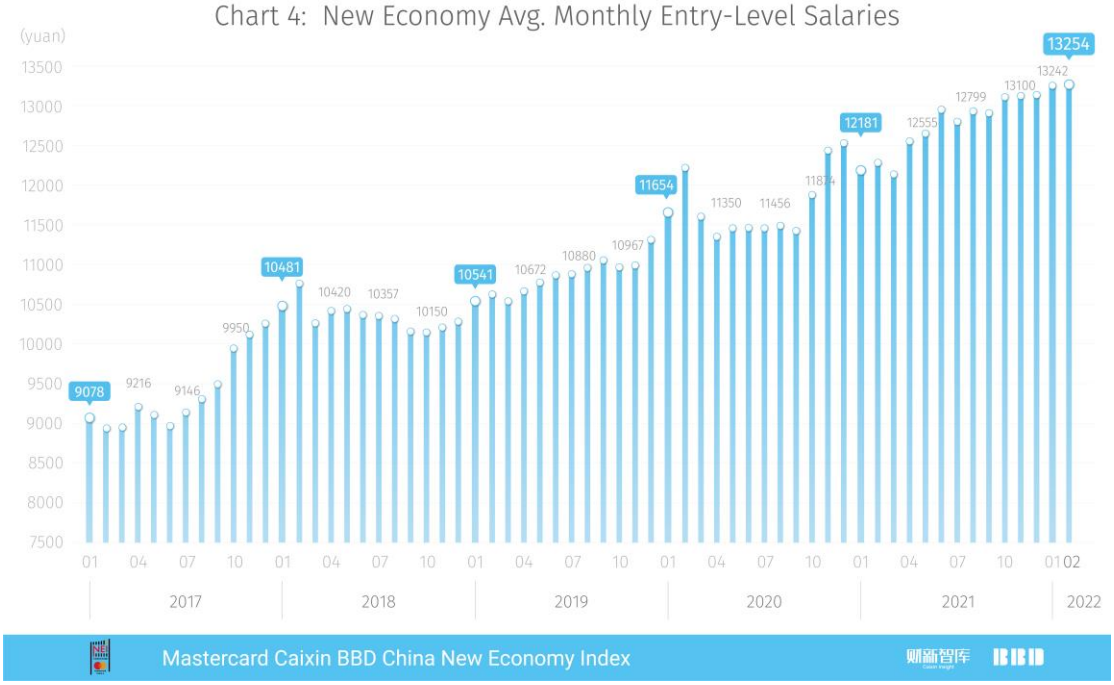
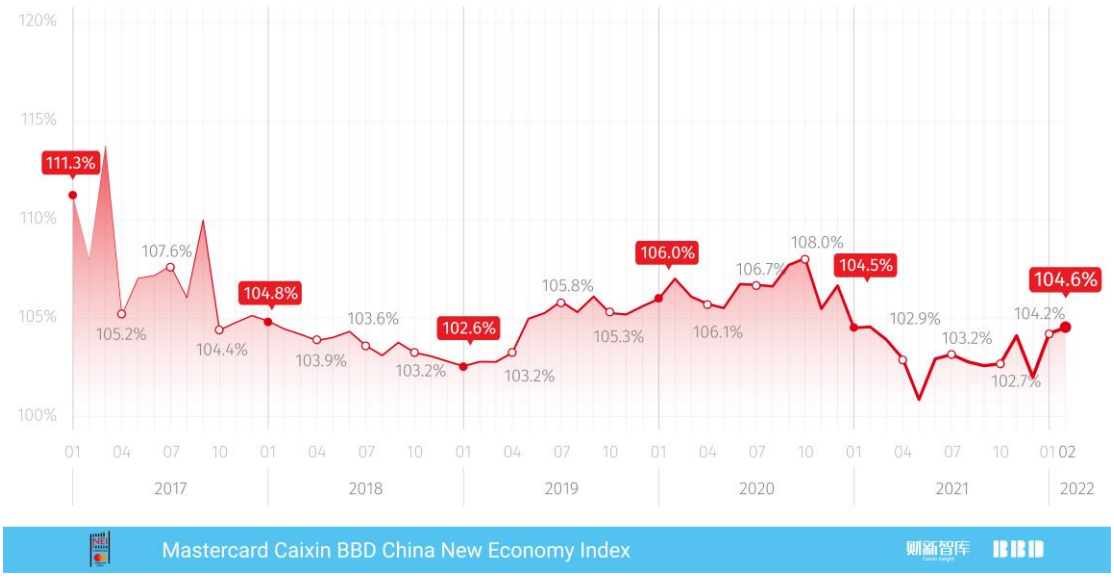


Chart 5: New Economy Entry-Level Salary Premium over Economy-wide Entry Level Salaries



The Impact of COVID-19 on Consumption

This month, we explored the impact of epidemic prevention and control on consumption and observed the recovery of consumption in different cities after the epidemic. In the past two years, cities such as Shaoxing, Dalian, and Yangzhou reported large scale domestic epidemics (Chart 6).

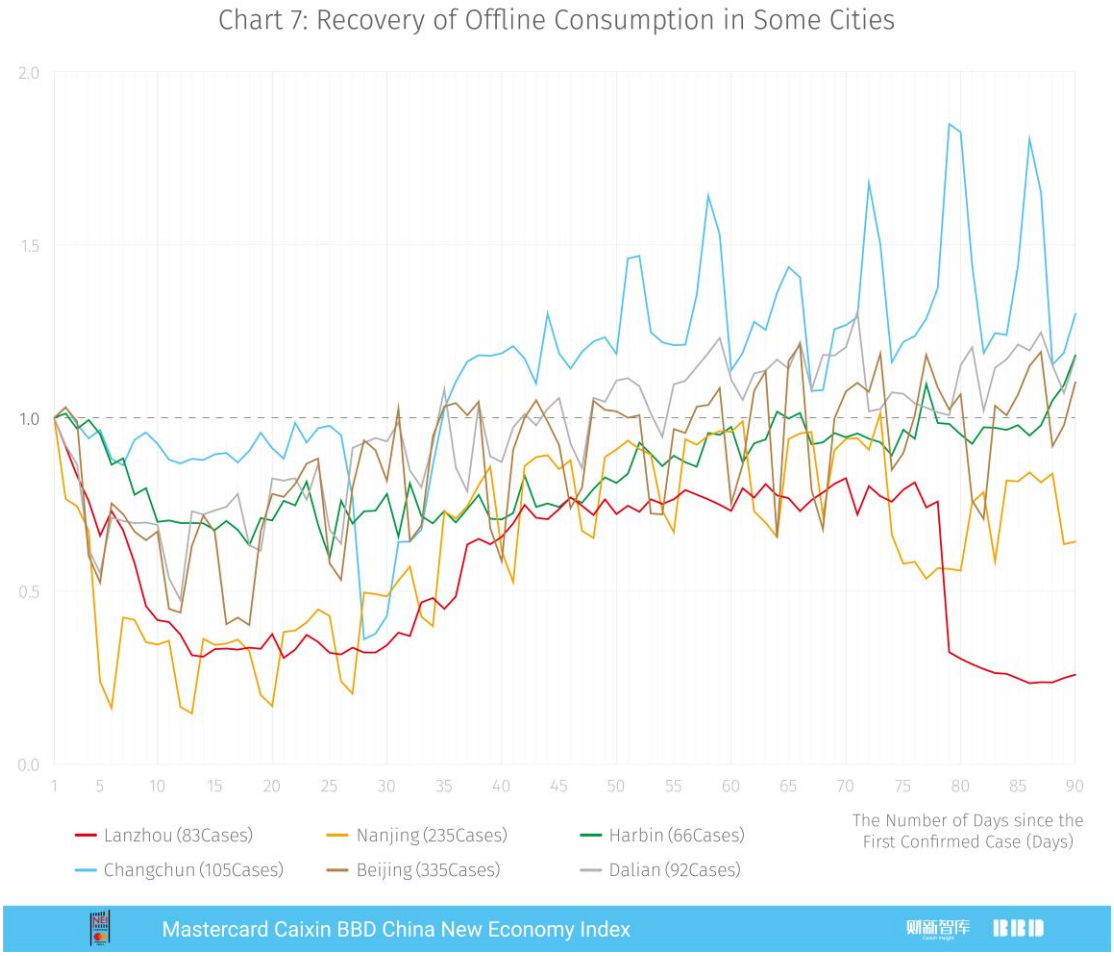
Chart 6: Consumption Recovery in Some Cities after the Epidemic

City	Cases	Start Date of Epidemic	Dates of Medium Risk Area Clearance	Epidemic Duration	Recovery Time for Online Consumption	Recovery Time for Offline Consumption
Harbin	66	2020.4.8	2020.5.6	28days	59days	64days
Beijing	39	2020.6.11	2020.7.20	39days	76days	31days
Urumqi	335	2020.7.15	2020.8.29	45days	Recover to 97.2% within 3 Months	Recover to 83% within 3 Months
Dalian	822	2020.7.22	2020.8.16	25days	38days	35days
Shijiazhuang	92	2021.1.2	2021.2.22	51days	Recover to 95.6% within 3 Months	Recover to 80.3% within 3 Months
Changchun	869	2021.1.15	2021.2.16	32days	29days	35days
Nanjing	105	2021.7.20	2021.8.19	30days	Recover to 90.3% within 3 Months	73days
Yangzhou	235	2021.7.27	2021.9.9	44days	76days	61days
Zhengzhou	569	2021.7.30	2021.8.28	29days	38days	64days
Xiamen	138	2021.9.11	2021.10.6	25days	51days	Recover to 83.9% within 3 Months
Harbin	243	2021.9.20	2021.10.14	24days	Recover to 95.9% within 3 Months	26days
Lanzhou	89	2021.10.18	2021.11.13	26days	77days	Recover to 82.5% within 3 Months
Dalian	83	2021.11.4	2021.12.4	30days	50days	58days
Ningbo	339	2021.12.5	2021.12.25	20days	28days	21days
Shaoxing	76	2021.12.5	2021.12.31	26days	35days	Not Monitored
Xi'an	376	2021.12.9	2022.1.24	46days	Not Recovered so far	Not Recovered so far

For offline consumption (Chart 7), in the epidemics with 100 confirmed cases (including 105 cases in Changchun and 138 cases in Zhengzhou), Ningbo and Changchun recovered rapidly, which people flow restored after 21 days and 35 days respectively. However, the people flow of Lanzhou recovered slowly, less than its pre-pandemic level three months later.

During the epidemics with hundreds of confirmed cases, the people flow in Beijing recovered fastest, rebounding to the level before epidemic in 31 days when medium-risk areas were not even cleared. The rapid recovery of consumption after the epidemic in Beijing was closely related to the concentrated outbreak of the epidemic. The confirmed cases in this epidemic were basically related to Xinfadi Market, so it is easier to identify risks. At the same time, Beijing covers a large area, resulting only Fengtai District affected by the local epidemic. While, other cities observed community infections at the early stage of large scale outbreak, and imposed stricter prevention and control orders, slowing down the recovery of people flow. The people flow of Dalian, Yangzhou and Nanjing restored after 58 days, 61 days and 73 days respectively. The people flow of Xiamen, Shijiazhuang and Urumqi only recovered to about 80% of the pre-

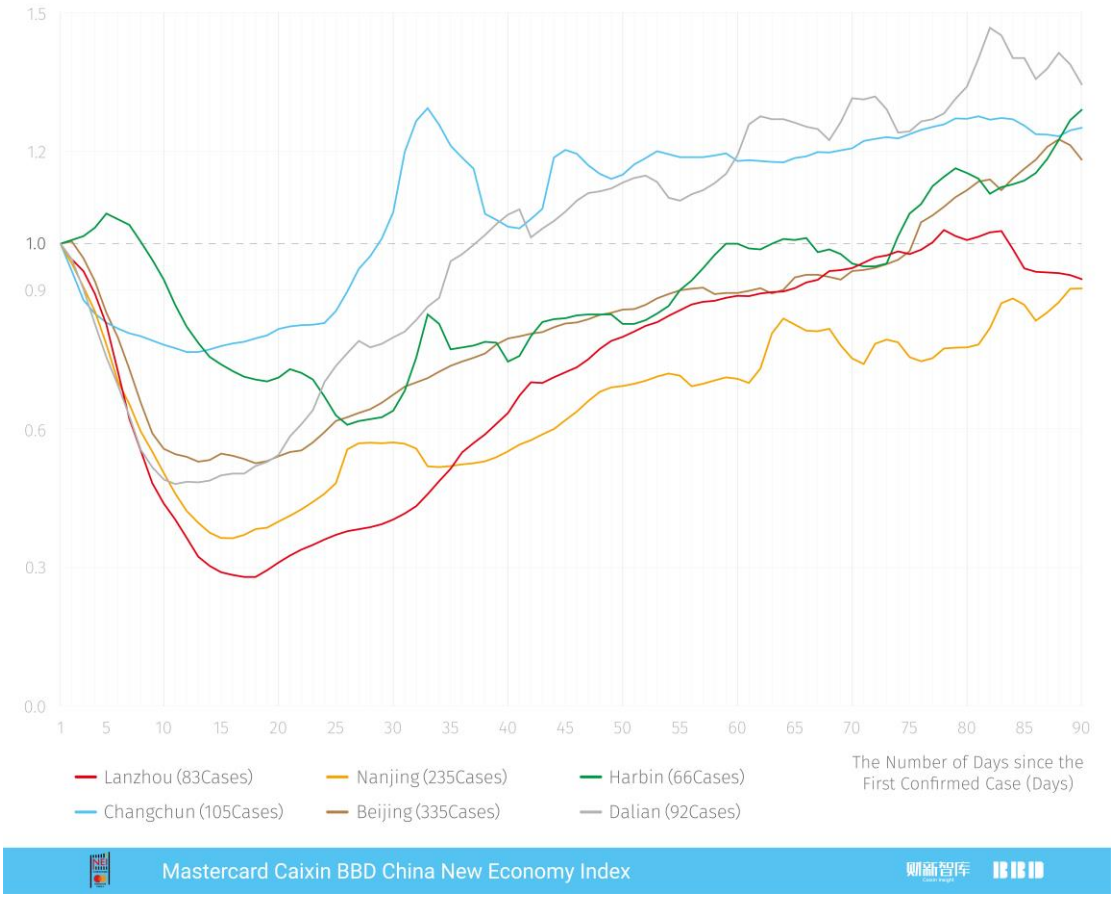
epidemic level three months later.



Online consumption generally recovered faster than offline consumption (Chart 8). During the small outbreak of epidemic, the online consumption in Ningbo and Changchun recovered fastest, rebounding to the pre-pandemic level after 28 and 29 days respectively, followed by Dalian (38 days) and Zhengzhou (38 days). The recovery of online consumption in Harbin and Lanzhou was not as fast.

In the epidemic with hundreds of confirmed cases, the online consumption in Shaoxing restored after 35 days. It took Dalian, Xiamen, Yangzhou and Beijing 50 days, 51 days, 76 days and 76 days to recover their online consumption to pre-epidemic levels, respectively. Online consumption in Nanjing, Shijiazhuang, Urumqi and Xi'an failed to fully recover within three months.

Chart 8: Recovery of Online Consumption in Some Cities



Based on the cumulative confirmed cases, the clearing time, and the recovery time of online and offline consumption, we categorized the above 14 cities to three groups: cities with fast recovery speed (Ningbo, Changchun, Shaoxing, and Dalian), cities with medium recovery speed (Beijing, Zhengzhou, Xiamen, Harbin, and Nanjing), and cities with slow recovery speed (Yangzhou, Lanzhou, Shijiazhuang, Urumqi, and Xi'an)

According to the data of the Bureau of statistics, in 2021, the total retail sales of consumer goods were 44082.3 billion yuan and the online retail sales of physical goods were 10804.2 billion yuan, accounting for 24.5% of the total retail sales of consumer goods. Based on this economic ratio and the impact of the epidemic on offline and online consumption, we estimated the loss of local consumption caused by a large-scale epidemic annually. Consumption in cities with fast or medium recover speed were less affected by the epidemic. For example, a large-scale epidemic in Beijing caused a 3.0% loss in local consumption. However, cities with slow recovery speed, such as Hangzhou, suffered a 10.3% loss in consumption after a large outbreak. The epidemic

and related prevention brought great negative impacts on offline and online consumption. How to optimize epidemic prevention and control policies to minimize their negative impacts on consumption will be important lessons to learn for many cities.

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

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

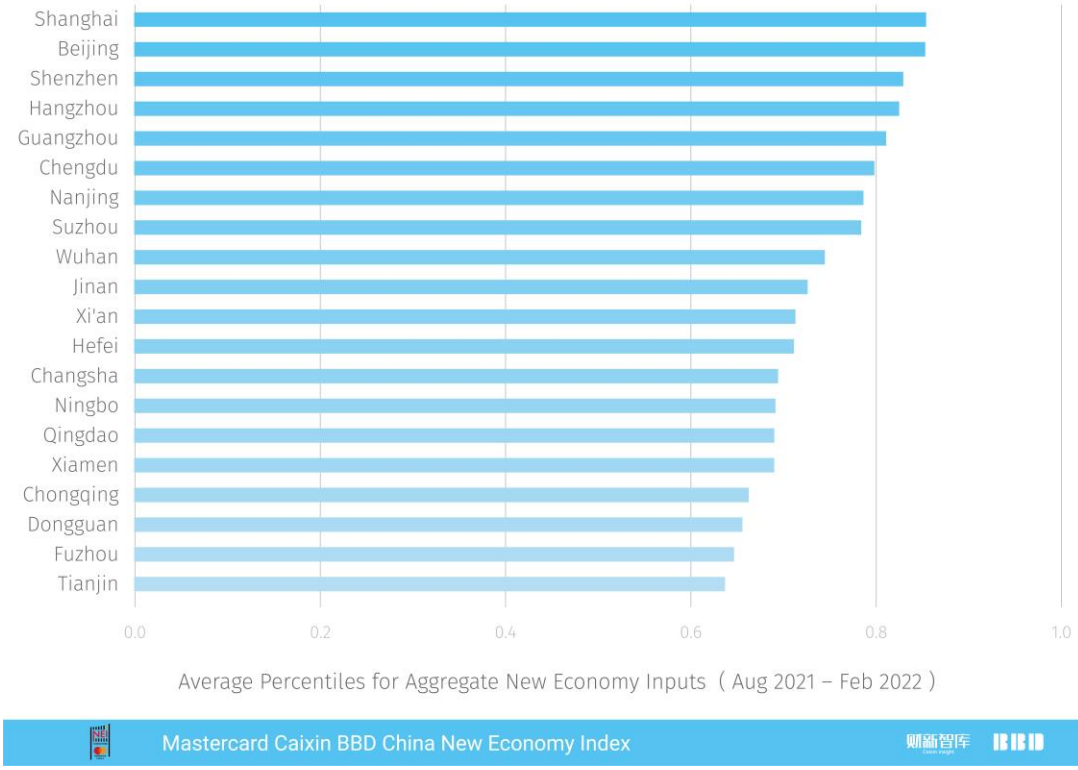
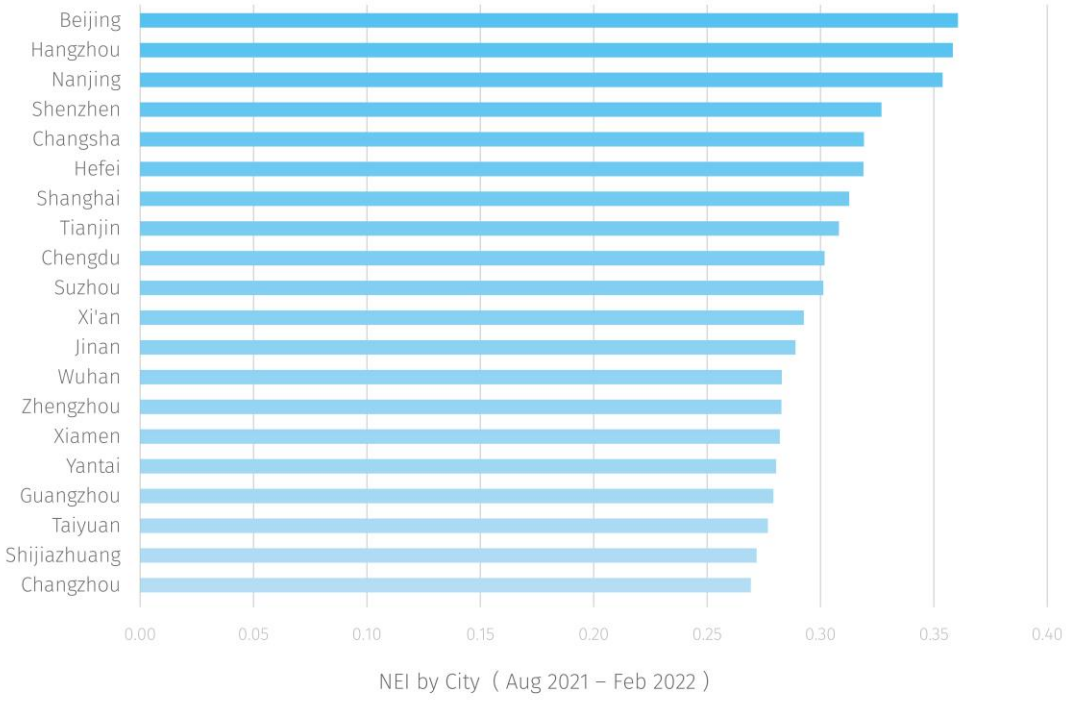


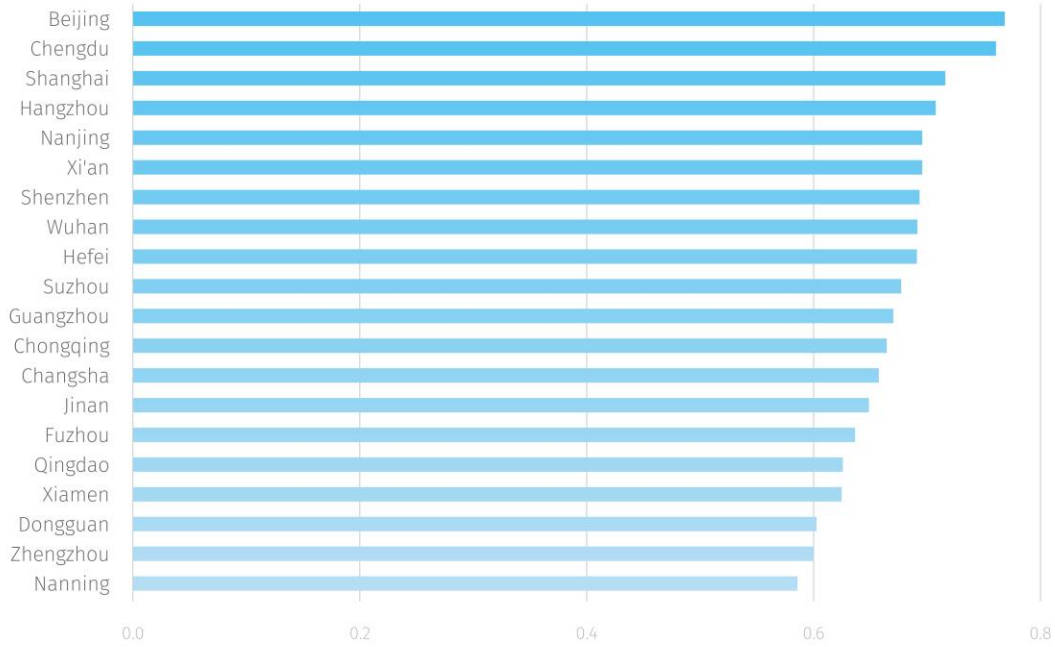
Chart 10 showed the average NEI city rankings between August 2021 and February 2022. The top five cities were Beijing, Hangzhou, Nanjing, Shenzhen and Changsha.

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 Nanjing, following by Xi'an and Shenzhen.

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（Aug 2021 – Feb 2022）

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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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