# Mastercard Caixin BBD China New Economy Index

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### Overview

In May 2021, the Mastercard Caixin BBD New Economy Index (NEI) reading came in at 31.0, indicating that the New Economy accounted for 31.0% of overall economic input activities that month, up 4.0 ppts from April 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 last year, the old economy showed stronger growth, suppressing the new economy. This month, NEI rebounded to its highest level since August 2020.

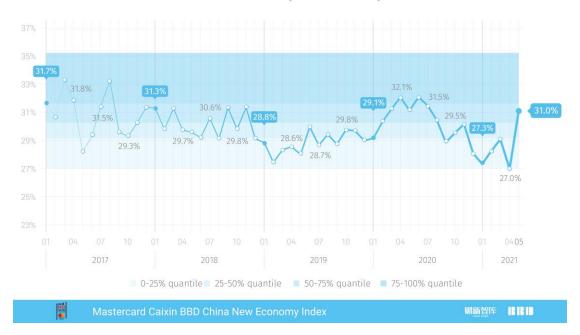


Chart 1: China Monthly New Economy Index

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 capital inputs. Capital input increased to 40.7 this month, with 11.2 MoM increase. Technology input index came in at 29.4 this month, with 0.8 MoM increase. Labor input index declined to 23.6 this month, with 0.2 MoM decrease (Chart 2). Taking the weights into account, percentage changes in labor, capital and technology inputs were -0.1, 3.9, and 0.2 ppts, respectively. The net NEI change was 4.0 ppts in total.







Chart 2: NEI Primary Input Index

The capital input index is composites of four sub-indicators: the ratio of venture capital in new economy industries, the ratio of invitation for bid in new economy industries, the ratio of capitalization of enterprises applying for the "New Three Board" in new economy industries, and scale of new enterprises in new economy industries. This month, the ratio of venture capital and ratio of capitalization of enterprises applying for the "New Three Board" in new economy industries increased significantly, which accounted for the increase in NEI in May.

# **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 9.4 ppts to New Economy Index, remarkably







higher than that in April, the share of Advanced Equipment Manufacturing increased substantially as well (Chart 3). Detailed data indicated that, the increase in New IT ratio was due to larger capitalization of enterprises applying for the "New Three Board", while Advanced Equipment Manufacturing industry was more favored by venture capital. In contrast, the contribution of New Energy and Energy Conservation & Environmental Protection declined in May.

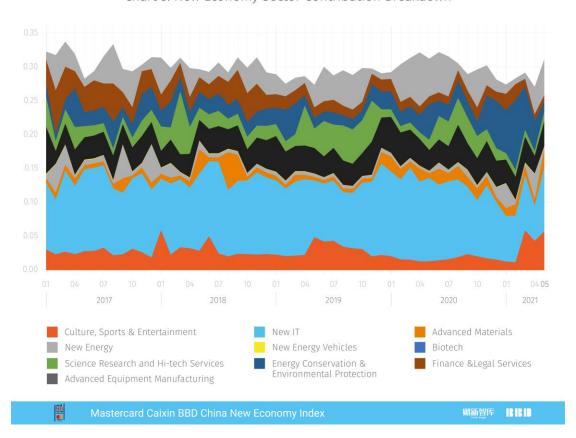


Chart 3: New Economy Sector Contribution Breakdown

### New Economy Employment

In May 2021, the average monthly entry-level salary of the New Economy was RMB 12,665, increasing from last month's level of RMB 12,555 (Chart 5). 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 0.9%, compared to 2.9% in April 2021 (Chart 6). 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.

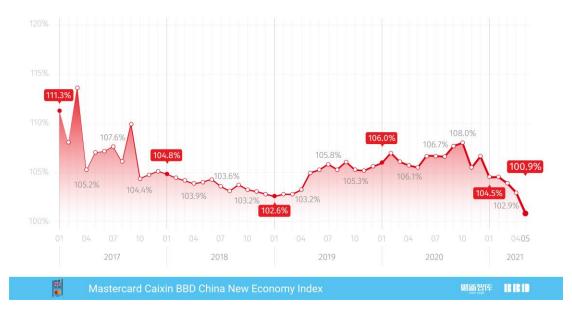








Chart 5: New Economy Entry-Level Salary Premium over Economy-wide Entry Level Salaries



# **Economic Trend Based on Enterprise Employment**

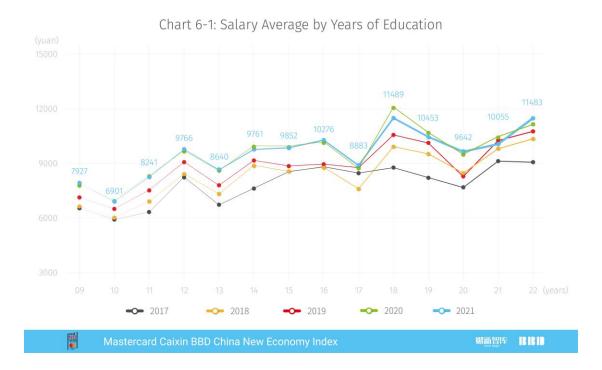
This month, we focused on the salary changes of different positions based on O\*NET Online database and recruitment data. Chart 6-1 showed the salary for positions with different education years. In 2017, the average salary of positions requiring nine years of compulsory education was RMB 6,536, and for doctoral candidates (22 years of education in average) was RMB 9,060, which was 38.6% higher than the former. Namely, 13 additional years of education







led to 38.6% salary premium in 2017, which was raised to 44.8% in 2021, indicating higher marginal contribution of education to income growth.



Managerial skills are important as well. We categorized all positions into multiple groups by management skills, among which the 100% group corresponded to complete management positions. Complete management positions were the positions with highest salary premium in recent years (Chart 6-2). In 2017, the salary of complete management position was RMB 16,349, 127% higher than the average salary of other management positions. But the salary premium declined to 111%, 89%, 80%, 70% respectively in the following four years, showing decreasing contribution of management skills to income.









Finally, we categorized all positions into nine groups by the requirement of mathematics, language and literature, and economics and accounting knowledge, respectively. As expected the three types of knowledge had positive effects on income (Chart 7). We might calculate the ratio of average salaries of the top one-third of positions to that of the bottom one-third in three cases to denote the contribution of different types of knowledge. From 2017 to 2021, the contribution of mathematics knowledge rose from 15.9% to 24.3%, the contribution of language and literature knowledge rose from 24.9% to 39.6%, while that of economics and accounting fell from 65.6% to 27.9%. These patterns reflected less demands for business professionals.

Chart 7-1: Contribution of Mathematics to Salary

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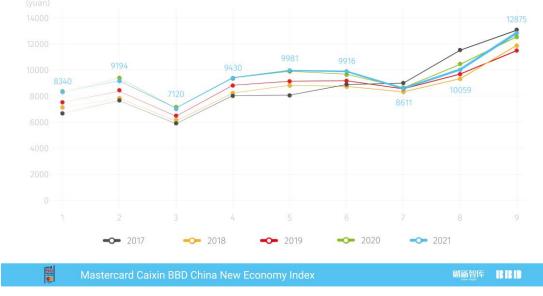






9822 **--** 2017 **~** 2019 **~** 2020 **~** 2021 **~** 2018 RED Chart 7-3: Contribution of Economics and Accounting to Salary

Chart 7-2: Contribution of Language and Literature to Salary



# 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 8. In May, the top five cities were Beijing, Guangzhou, Hangzhou, Shanghai and Nanjing.







Beijing Guangzhou Hangzhou Shanghai Nanjing Chengdu Shenzhen Suzhou Dongguan Jinan Hefei Ningbo Wuhan Changsha Xiamen Qingdao Fuzhou Xi**'**an Zhengzhou Nanchang

Chart 8: China's Top 20 Cities Ranked by New Economy Sector Output

Average Percentiles for Aggregate New Economy Inputs (Nov 2020 - May 2021)

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Chart 9 showed the average NEI city rankings between November 2020 and May 2021. The top five cities were Beijing, Nanjing, Jinan, Shanghai and Haikou.







Beijing Nanjing Jinan Shanghai Haikou Zhuhai Guangzhou Xi'an Urumqi Hangzhou Dongying Shijiazhuang Qingdao Changsha Shenzhen Suzhou Wuhan Hefei Jilin Dongguan NEI by City ( Nov 2020 - May 2021 )

Chart 9: China's Top 20 Cities Ranked by Average NEI

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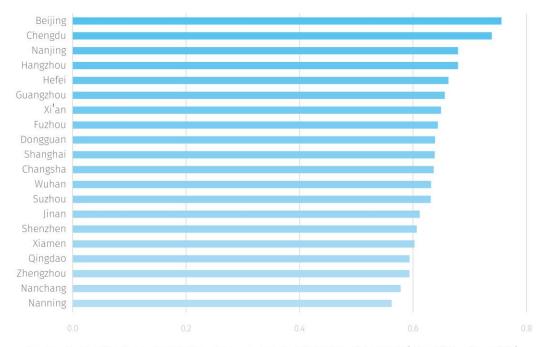
In addition, we showed the city rankings adjusted by living cost by taking housing price, minimum wage and disposable income per capita into account (Chart 10). After the adjustment, the top five cities were Beijing, Chengdu, Nanjing, Hangzhou and Hefei, following by Guangzhou and Xi'an.







Chart 10: 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 ( Nov 2020 - May 2021 )

Data Visualization Design by Wu Yi



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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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