



COVID-19 Thematic Report No.4

Post-Lockdown Economic Recovery in China: April and May¹

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This letter documents several facts of China's post-lockdown economic recovery in April and May. The main findings are summarized as follows.

- (1) Truck flows and online consumption suggest a strong recovery.
- (2) The recovery of online job posts stagnated.
- (3) Smaller firms cut online job posts more dramatically in the first quarter. Such asymmetry became less pronounced in April.

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We begin with truck flows data from a private company, which provides real-time GPS data from about two million trucks operating across more than 336 out of a total of 342 provincial- and prefecture-level cities in China. Figure 1 plots the daily aggregate cross-city truck flows, with January 1st 2019 normalized to one. One can see a very significant loss of shipment of goods from the late January to the mid of March. The total cross-city truck flows fell by 15.8% in the first quarter on a year-on-year basis. The truck flows fully recovered in the late March and have been growing since then. The year-on-year growth rate was 12.6% and 10.4% in April and May, respectively.

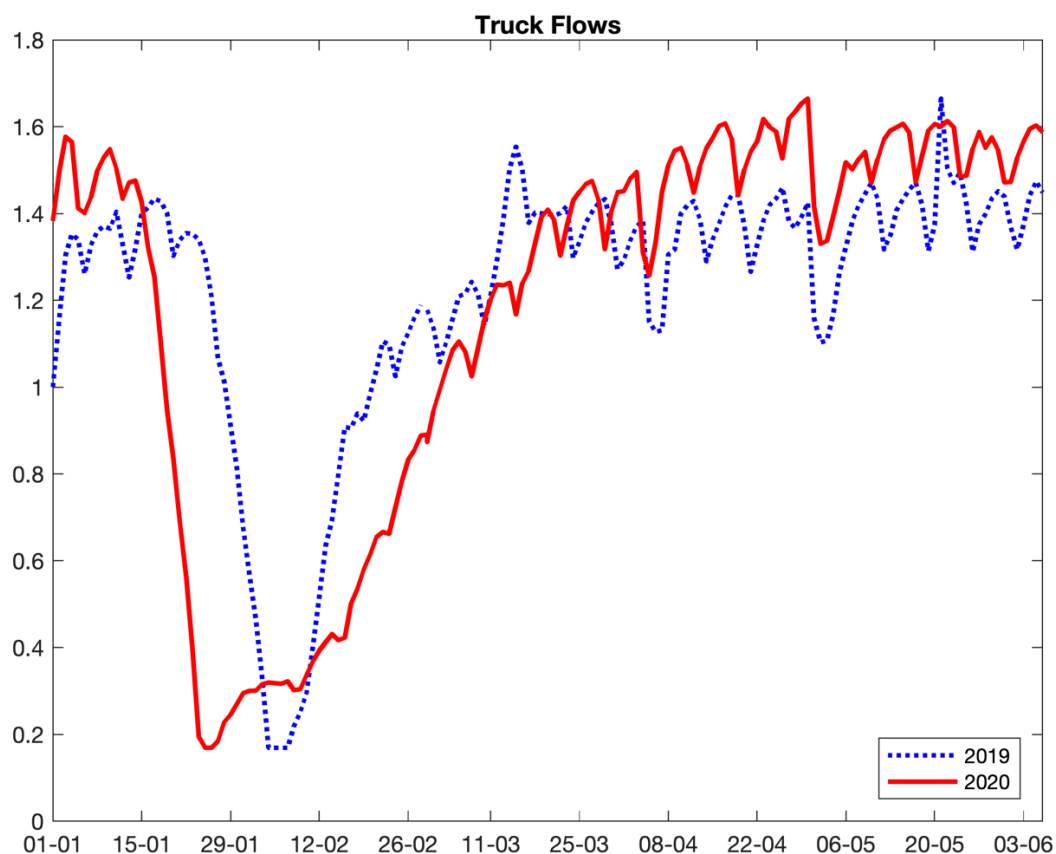


Figure 1: **Truck Flows**, with the first day of 2019 normalized to one. The solid and solid lines are for the aggregate cross-city truck flows in 2019 and 2020, respectively. Data Source: G7.

Our previous report documented the recovery of online job posts in March. However, different from the strong growth of cross-city truck flows after the first quarter, online job posts stagnated in April and have not yet reached the last-year level until the end of April. Figure 2 plots the new job posts from two major online job markets.² The losses of new job posts were enormous in the first quarter. The recovery was strong before the mid-March and lost steam afterwards. The daily new job posts in April is about 20-25 percent lower than last year.

² We examine the representativeness of the two online job markets in the Appendix. One important caveat is an over-representation of large firms.

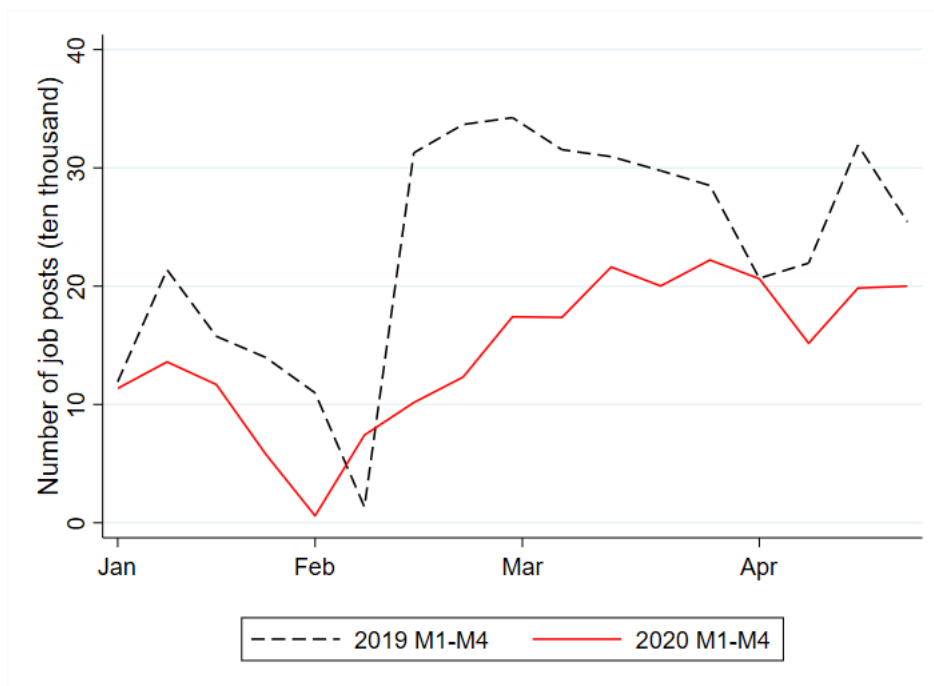


Figure 2: **New Online Job Posts from January to April.** The dotted and solid lines plot the number of daily new job posts in 2019 and 2020, respectively. Data source: Two major online job platforms.

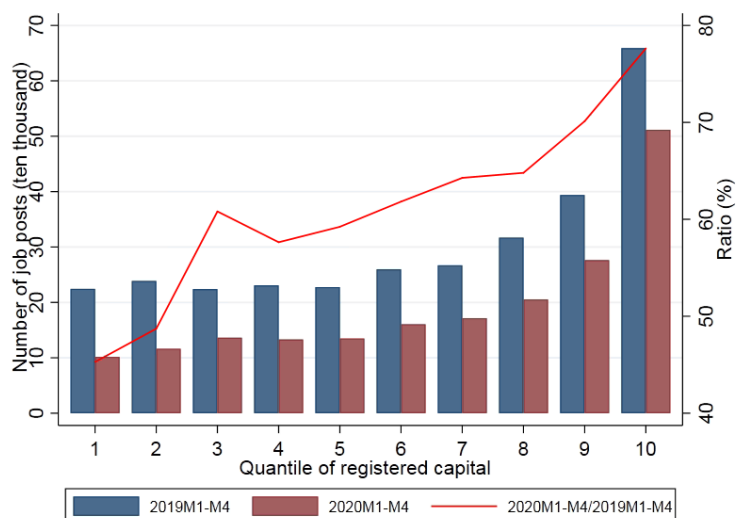


Figure 3: **New Online Job Posts from January to April by Firm Size.** Firms are grouped into deciles according to their registered capital in 2019. The left and right bars are the total number of new job posts in January-April of 2019 and 2020 (left y-axis), respectively. The line is the ratio of the 2020 new job posts to its 2019 number (right-y-axis). Data source: Two major online job platforms and the 2019 firm registration data.



Our previous report documented a larger decline in sales of small firms in the first quarter. We find a similar asymmetry in job posting. We first match the firms posting online jobs with those in the 2019 firm registration data. Firm size can thus be measured by registered capital in the matched sample. We group firms into deciles by their registered capital. Figure 3 shows that new online job posts in the first four months are less than those in 2019 across all firm size deciles. The decline tends to be more dramatic for smaller firms. For instance, new job posts of the bottom 20% firms by registered capital fell by more than half, while the decline was less than a quarter for the top-decile firms.

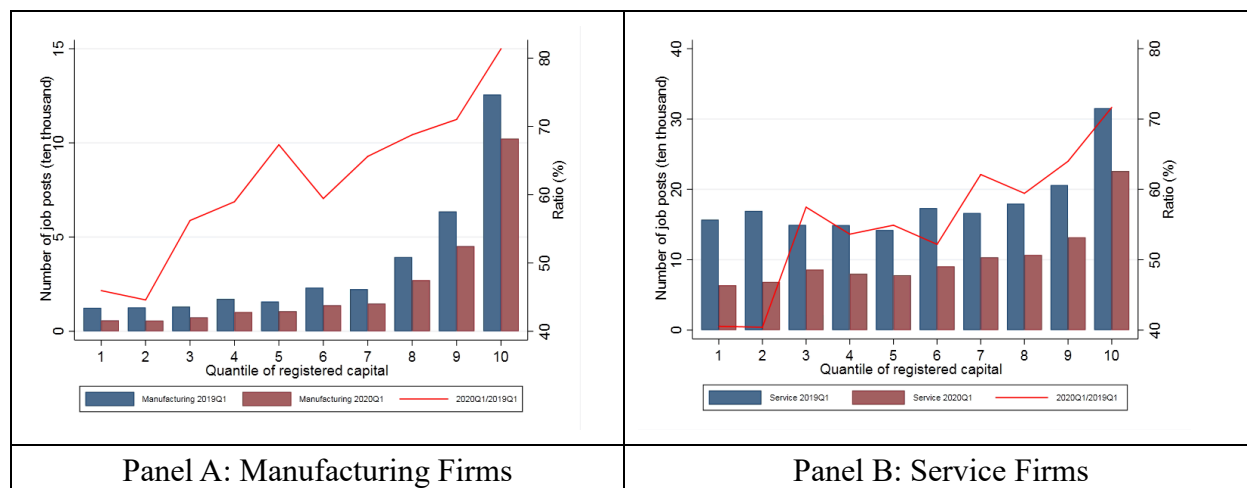


Figure 4: New Online Job Posts in the First Quarter by Firm Size in Manufacturing and Services. Panel A and B are for manufacturing and service firms, respectively. The number of new job posts is for the first quarter (as opposed to the first four months in Figure 3). The other specifications are the same as those Figure 3.

Panel A and B of Figure 4 plot new job posts in the first quarter by firm size in manufacturing and services, respectively. It is immediate that small service firms contribute a lot more to new job posts than their manufacturing peers in 2019. Nevertheless, the asymmetry of decline in new job posts between small and large firms is similar between manufacturing and services.

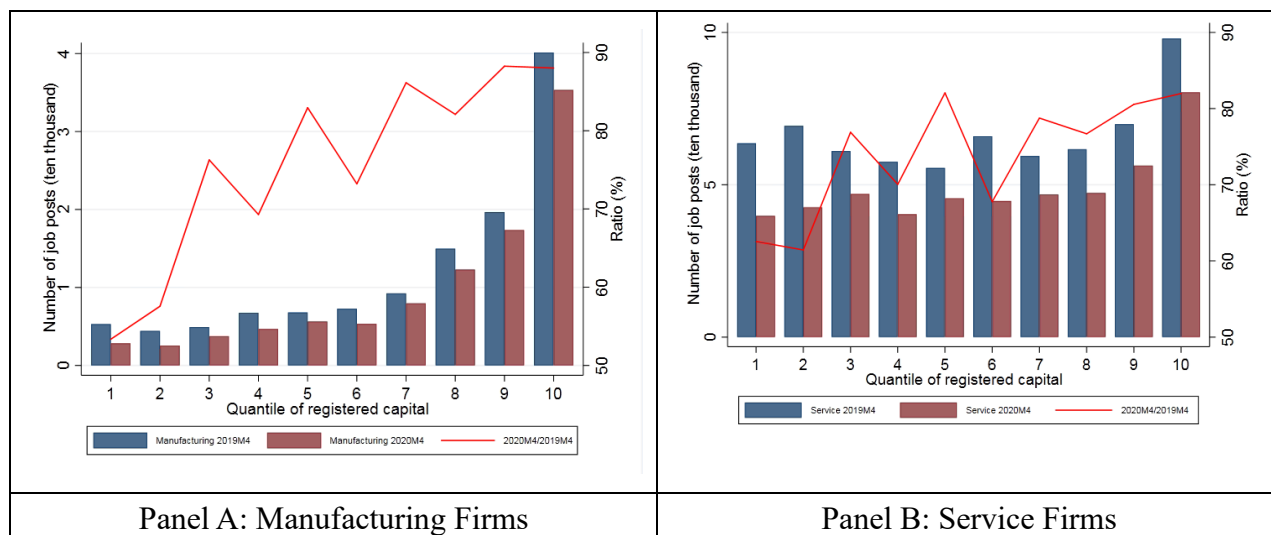


Figure 5: New Online Job Posts in April by Firm Size in Manufacturing and Services. Panel A and B are for manufacturing and service firms, respectively. The number of new job posts is for April only (as opposed to the first four months in Figure 3). The other specifications are the same as those Figure 3.

Figure 5 plots new job posts in April. Interestingly, the recovery is associated with a less pronounced asymmetry across firm size. The difference is particularly significant for service firms. The loss of new job posts was about 30% and 60% for the top- and bottom-decile service firms in the first quarter. The corresponding loss was about 20% and 40% in April. This is encouraging, suggesting that small service firms that were hit harder have been recovering at a faster rate.

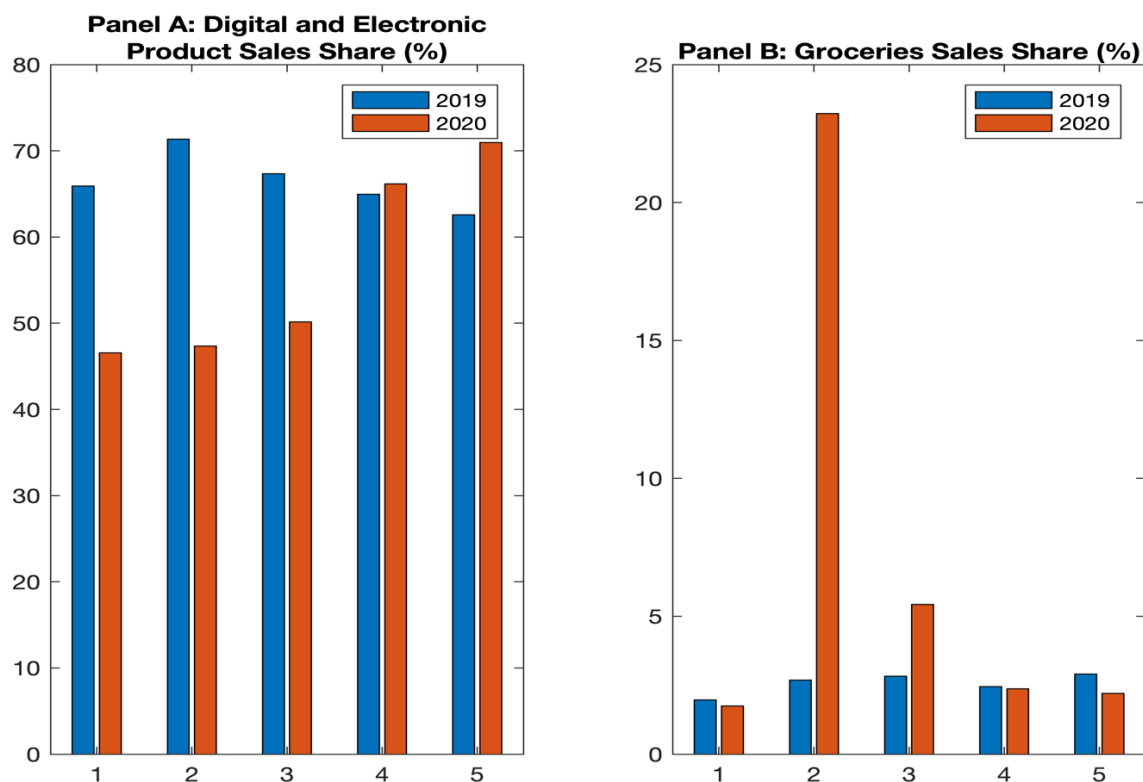


Figure 6: **Online Sales Shares by Product Category** plots monthly digital and electronic goods sales share (Panel A) and groceries sales share (Panel B). The data is provided by a major online sales platform in China.

Our second report documented changes in consumption patterns in January and February according to product category level data from a major online sales platform in China. In particular, digital and electronic goods sales plummeted but groceries skyrocketed. We update the sales share for the two types of goods in Figure 6. One can see that the sales shares have been come back to their last-year levels in April. The sales share of digital and electronic goods continued to rise in May. The total sales of the online platform also grew by 13% and 23% on a year-on-year basis, respectively.



Appendix

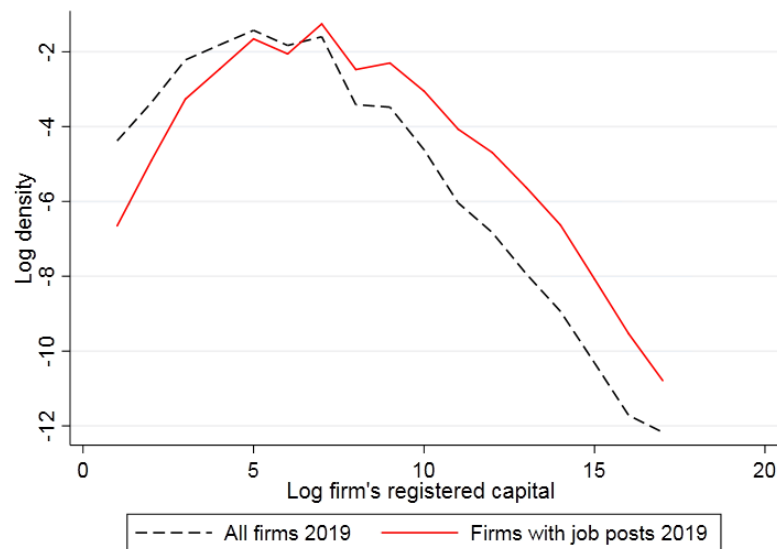


Figure A1: Firm Size Distribution. The dotted line plots the distribution of registered capital for all firms in the 2019 registration data. The solid line plots the distribution of registered capital for all the firms posting jobs on the two online job markets matched with the 2019 registration data.

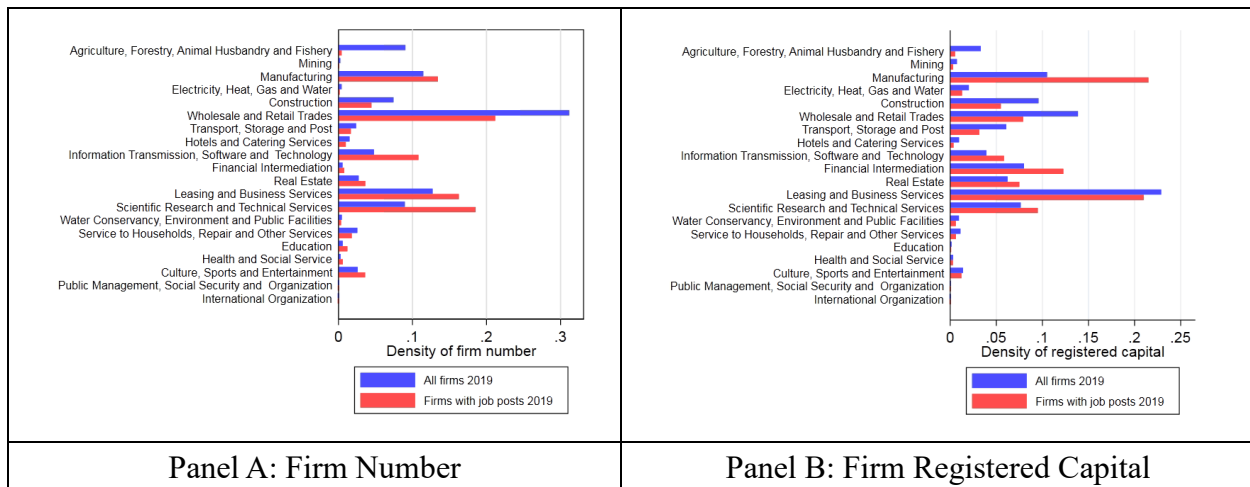


Figure A2: Sectoral Distribution. Panel A plots the distribution of firm number across one-digit industries. Panel B plot the distribution of registered capital.



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