

## **Covid-19 Crisis and Shifts in the Corporate Competitive Landscape: Comparisons with Previous Economic Crises**

Sang-Ha Yoon, Yaein Baek, Wontae Han, Yoonsoo Lee, and Daisoon Kim

In terms of economic fluctuations, it is well recognized that the effects of an economic crisis have a detrimental impact on the entry, growth, decline, and exit of firms. In addition, the magnitude of the impact varies both within and between industries depending on the size and other characteristics of the firm. The economy is going through significant changes due to the emergence of new industries and the decline or disappearance of current ones. This study looks at how big economic events like the COVID-19 pandemic and the global financial crisis have affected businesses and industries. After completing a study at several levels of top international corporations, larger domestic enterprises, and domestic small and medium-sized businesses, it attempts to draw policy implications.

In chapter 2, we analyzed changes in the activities and characteristics of large global firms using Global Compustat: Fundamental Annual data. Specifically, we presented basic statistics on changes in

concentration and profit margins in three regions (Asia, North America, and Europe) and then examined how the economic share of large firms has changed over time and across crises. We also looked at the data by industry to identify heterogeneity. To understand the impact of changes in the economic weight of top firms, we examined how the characteristics of top firms have changed over the past 20 years. We looked at cost-to-sales, investment-to-sales, and R&D-to-sales as firm characteristics. Cost-to-sales is closely related to operating margins and markups, while investment and R&D expenditures as a percentage of sales have a significant impact on economic development, with differences between North American companies and those in other regions. After reviewing the changes in the ranking of larger companies, we found that North American firms were more likely to move up and down, while those in Europe and East Asia were less likely to do so. Finally, the regression analysis examined differences in business cycle sensitivity based on firm characteristics. The results showed that firms with larger sales and higher sales-to-cost ratios were less sensitive to cyclical fluctuations, i.e. larger firms were less sensitive to changes in GDP than smaller firms. Using sales growth in local currency terms, the top 500 companies were 20-30% less sensitive to GDP increases than the companies below them. We also found that higher cost-to-sales ratios (mark-ups) were associated with lower sensitivity to economic shocks when analysing companies with higher cost-to-sales ratios (the top 500 companies in the region) versus smaller companies (those below the 500). This means that companies with higher

cost-to-sales ratios experienced about 20-40% less revenue decline when GDP fell.

In chapter 3, we compared and analyzed the negative impacts of each industry in the 2008 global financial crisis and the COVID-19 crisis based on corporate sales, and diagnosed the asymmetrical impact on face-to-face and non-face-to-face industries during the pandemic for Korean listed firms. As a result, first, real sales of all companies fell by an average of 4.28 percent year-on-year in 2020, whereas real sales fell by 20.08 percent in 2009, shortly after the 2008 global financial crisis. This indicates that the intensity of the recession was greater during the 2008 global financial crisis than in the 2020 pandemic for listed firms. In other words, during the 2008 global financial crisis, corporate management activities shrank more significantly than during the 2020 pandemic crisis, and the economic recession lasted longer. Second, immediately after the 2008 financial crisis, all industries except mining, agriculture, forestry, and fisheries shrank. 2009 was particularly hard-hit with real estate and rental sales falling 87.73% compared to the 2008 average. In contrast, immediately after the 2020 pandemic outbreak, there was no significant decline in sales in other industries except for arts, sports and leisure services, transportation, agriculture, construction, wholesale and retail, accommodation and restaurant, facility management and business support services. Sales in real estate and rental actually increased by 52.25% compared to the 2019 average. Third, industries that were more affected by the 2020 pandemic crisis than the 2008 global financial crisis included (i)

agriculture, forestry, and fishing, (ii) mining, and (iii) arts, sports, and leisure-related services. Whereas, all 12 other industries experienced a greater impact from the 2008 global financial crisis. Fourth, the impact of COVID-19 was asymmetric in the face-to-face and non-face-to-face industries. In the case of non-face-to-face industry sales, the deviation rate was -3.37% in 2020 compared to the 2019 average, while face-to-face industry sales were -12.50% in 2020, showing a greater decrease compared to the 2019 average. Fifth, the gap between the non-face-to-face and face-to-face industries was even greater, recording an average of -16.12% and -0.12%, respectively, showing a much larger drop in the face-to-face industry.

The second part of chapter 3 focused on smaller companies and examined the characteristics of their regional and industry licensing rates and closing rates through local administrative licensing data. Amid significant patterns by industry and period, the trend was stronger than the economic fluctuation in the entire period after the Asian financial crisis, and the licensing rate was systematically higher than the closing rate. This suggests that the competitive strength of small and medium-sized businesses continued to increase. During the COVID-19 period, it was also possible to find a phenomenon in which the licensing rate rose, and the closing rate fell depending on the industry. The same was true for start-ups with less than the third year of establishment, but the level of closing rate remained quite high compared to the entire industry, consistent with the results of overseas literature studies. As a result of panel

regression analysis on how the social distancing policy introduced to prevent the spread of COVID-19 affected the closing rate of all industries and restaurant industries, it was confirmed that strengthening distancing in sectors for all industries and restaurant industries significantly increased the closing rate.

Chapter 4 summarized the corporate support policies implemented during the COVID-19 period for major countries and analyzed the changes in the size distribution of Korean companies by industry. In particular, in order to examine the effect of the COVID-19 support policy, the inequality in the size distribution of companies such as automobile parts manufacturing, textile and clothing industries, and sports and entertainment-related service industries, which were eligible for support, was measured. The greater the industry inequality, the higher the proportion of sales or employment in the industry by a small number of companies. As a result of the analysis, unlike the rapid increase in manufacturing sector inequality due to the impact of COVID-19, the textile and clothing industries increased relatively less, and the automobile parts manufacturing industry decreased, which can infer the support effect. In particular, in the automobile parts manufacturing industry, inequality was somewhat reduced, which shows that the effect of supporting SMEs in the industry would have been greater than those in the textile and clothing industry. The sports and entertainment-related service industry showed a sharp change in the distribution of corporate sizes during the COVID-19 period, indicating that there was government support, but the impact of social distancing was significant.

Finally in chapter 5, we presented policy implications based on the above research results. First, it is necessary to foster and support top-tier companies to defend against global economic fluctuations and strengthen international competitiveness. In particular, the institution in charge of competition policies domestically and the institution that helps companies improve their competitiveness are different and the focus of policies is distinctive, so comprehensive attention and perspective of policymakers are needed. Second, it is urgent to respond to new issues related to competition policy in the domestic market. The behavior of emerging big tech and platform companies is different from monopoly companies in the past, so consumer welfare is not impaired, but it burdens nearby and other market participants. Therefore, a view that deviates from the focus on monopoly pricing is also essential for competition policy. Third, measures to support global corporate growth and countermeasures against changes in the industrial landscape should be prepared. Investment and R&D expansion at the corporate level is essential for corporate growth, and measures are needed to boost investment in recently emerging intangible assets. In addition, it is important to revitalize the movement of economic resources to cope with changes in the inter-industry landscape accompanied by the crisis. Fourth, policies to revitalize start-ups and closures are required. The decline in new companies' market entry and exit rates is a symptom of an aging economy contributing to the overall decrease in productivity. Therefore, enhancing the revitalization of the corporate ecosystem and expanding the size of enterprises are essential to

enhance the dynamics of the economy. Fifth, it is necessary to find an appropriate combination of government roles in times of crisis. In particular, it is important to grasp the detailed status of economic stabilization policies in relation to SMEs, and at the same time, clear judgments on the appropriate size of support measures, the period of support, and the timing of collection are urgently needed.