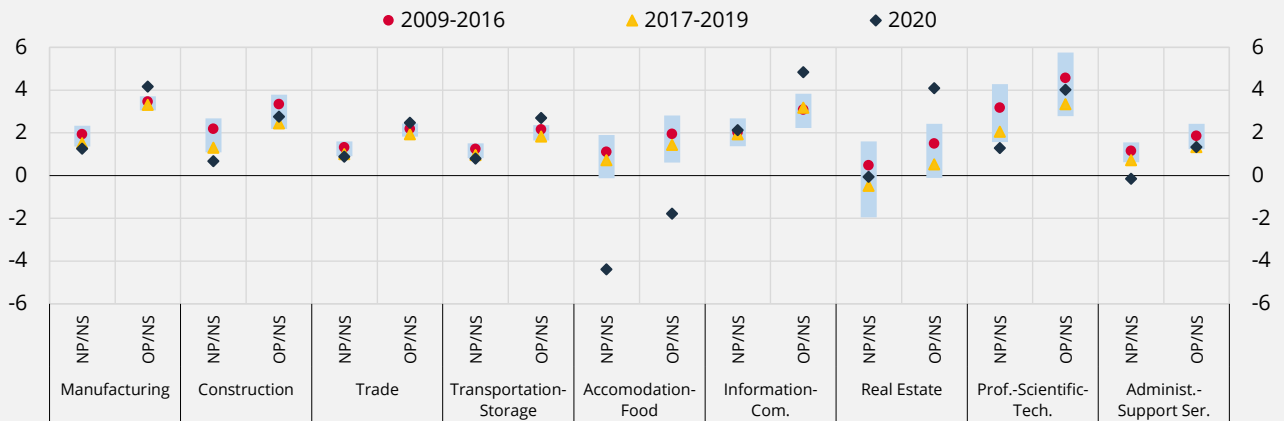


Box 2.3

Profitability Ratios by Sectors

During the pandemic, due to the limitations affecting the tourism and services sectors, cash flow problems, changing consumer preferences and various sector-specific supply problems, the pace of recovery and its effect on firm balance sheets differed significantly from sector to sector. This box examines profitability of firms on a sectoral basis for the 2009-2020 period. In the calculation of firm-level net profit / net sales and operating profit / net sales ratios, income statements for the 2009-2019 period and temporary income statements for the first three quarters of 2020 are used. The development of the calculated profitability ratios are examined for three different periods. The first of these periods is the 2009-2016 period, when inflation and real exchange rates remained relatively stable. This is followed by the 2017-2019 period, when the depreciation of the Turkish lira accelerated and inflation rose to double digits, and the year 2020, when the pandemic prevailed. Thus, it will be possible to compare two sub-periods in which a significant change is observed in the real exchange rate level and the dynamics of the pandemic period can be discussed.

Chart 1: Firm Profitability in 2009-2020 Period*



Source: Revenue Administration (RA), Authors' calculations.

* NP/NS: Net Profit / Net Sales. OP/NS: Operating Profit / Net Sales.

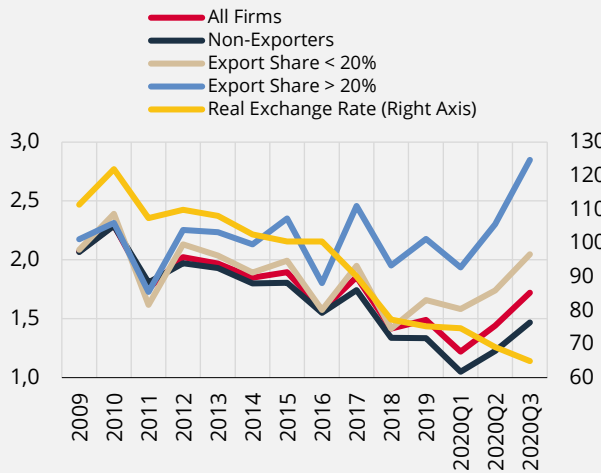
The lower and upper bounds of the blue boxes in the chart show the lowest and highest values of the relevant ratio in the 2009-2019 period, respectively. In the calculations for 2020, temporary income statement data for the first three quarters are used.

When the profit ratios are evaluated on a sectoral basis, the operating profit / net sales ratio of exporting firms (foreign sales greater than zero) operating only in the manufacturing and information-communication sectors increased in the 2017-2019 period compared to the 2009-2016 period, while this ratio decreased in all other sectors regardless of the export situation. In terms of net profitability, only in the information-communication sector did the profitability of exporting firms increase after 2016, and net profitability decreased in all other sectors regardless of their export situation. The 2020 averages of operating profit / net sales ratios in manufacturing, trade and transportation-storage sectors are above the average of previous periods (Chart 1). However, the 2020 average of the net profit / net sales ratio is below the average of previous years. The post-2016 averages of both profitability ratios examined in the construction, professional-scientific-technical services and administrative-support services sectors decreased compared to the 2009-2016 period averages. The accommodation and food sector, one of the sectors hit worst by the pandemic, registered losses in 2020. The information-communication sector operating profit / net sales ratio increased significantly in 2020, thanks to increasing online communication needs and shopping preferences due to the pandemic and firms' technological investments to work remotely and to market their products.¹ Housing sales, which increased as a result of interest rate cuts and similar campaigns held in 2020, led to an increase in operating profitability in the real estate services sector.

¹ According to the results of the TURKSTAT Household Information Technologies (IT) Usage Survey, in 2020, the rates of households and individuals with internet access and ordering or purchasing products over the internet increased compared to the previous year. According to the results of the IT Usage Survey in TURKSTAT Initiatives, the number of startups with websites, the rate of social media usage and the highest internet connection speed (100 Mbit/s) subscription rates increased compared to the previous year.

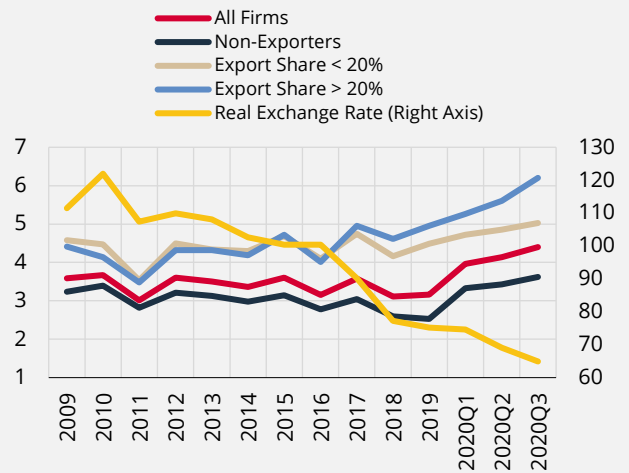
The profitability of exporting firms across the manufacturing industry is higher than non-exporters, and this difference increased after 2016, when the depreciation of the real exchange rate accelerated (Charts 2 and 3). In order to evaluate the impact of the export status of a firm on its profitability, manufacturing industry sectors are discussed separately in detail.

Chart 2: Manufacturing Industry Net Profit / Net Sales Ratio



Source: RA, Authors' calculations.

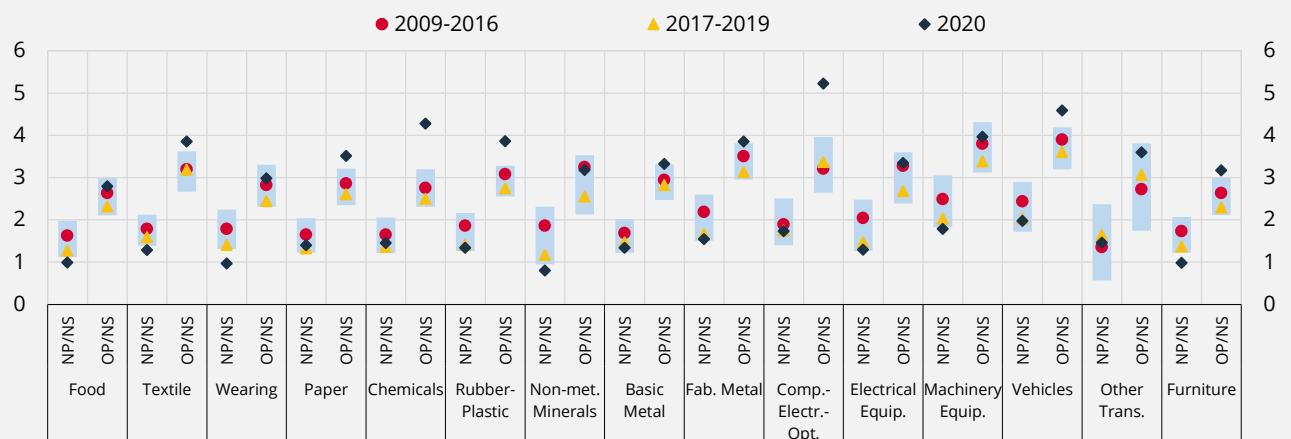
Chart 3: Manufacturing Industry Operating Profit / Net Sales Ratio



Source: RA, Authors' calculations.

According to the 2019 balance sheets, approximately 70% of the manufacturing industry companies did not engage in exports, while these companies realized 13% of the net sales in the manufacturing industry and accounted for 27% of the employment. The net profit / net sales ratio of non-exporter firms in sectors other than the other transportation vehicles sector decreased after 2016 and fell below the average of previous years, while this ratio decreased mostly in the construction related non-metallic minerals sector (Chart 4). In terms of operating profit, many sectors exhibit a similar outlook. Despite the increase in operating profits across sectors in 2020, the decline in net profitability is remarkable.

Chart 4: Manufacturing Industry Non-Exporting Firms Profitability

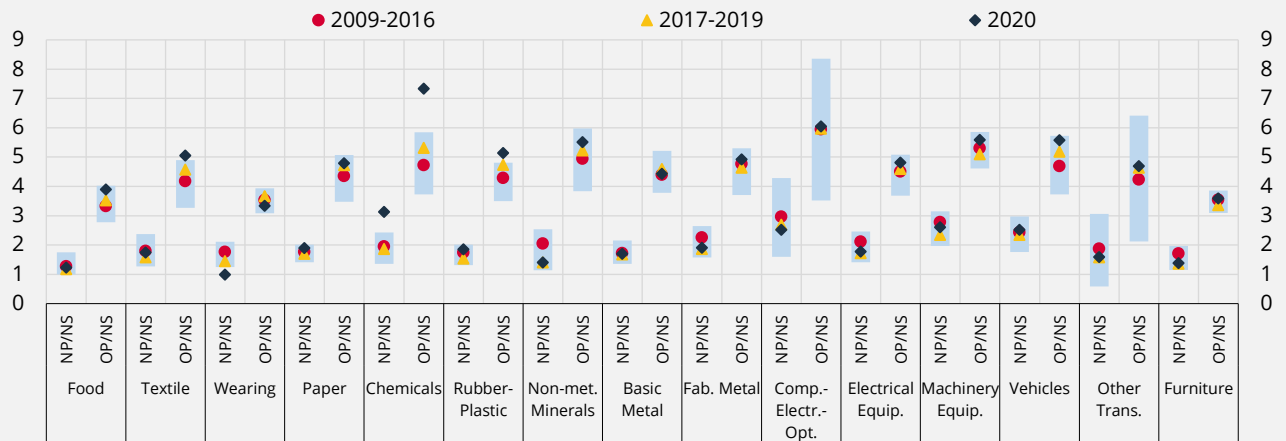


Source: RA, Authors' calculations.

The lower and upper bound of the blue boxes in the graph show the lowest and highest values of the relevant ratio in the 2009-2019 period, respectively. In the calculations for 2020, temporary income statement data for the first three quarters are used.

Profitability rates of firms with an export share below 20% are higher than the profitability rates of non-exporting firms (Chart 5). The difference among periods in profit ratios of firms with low export shares is more limited than the non-exporter firms. In other words, the post-2016 profit ratios of firms with low export shares are close to the averages of the previous period.

Chart 5: Manufacturing Industry Firms Profitability with an Export Share Below 20%

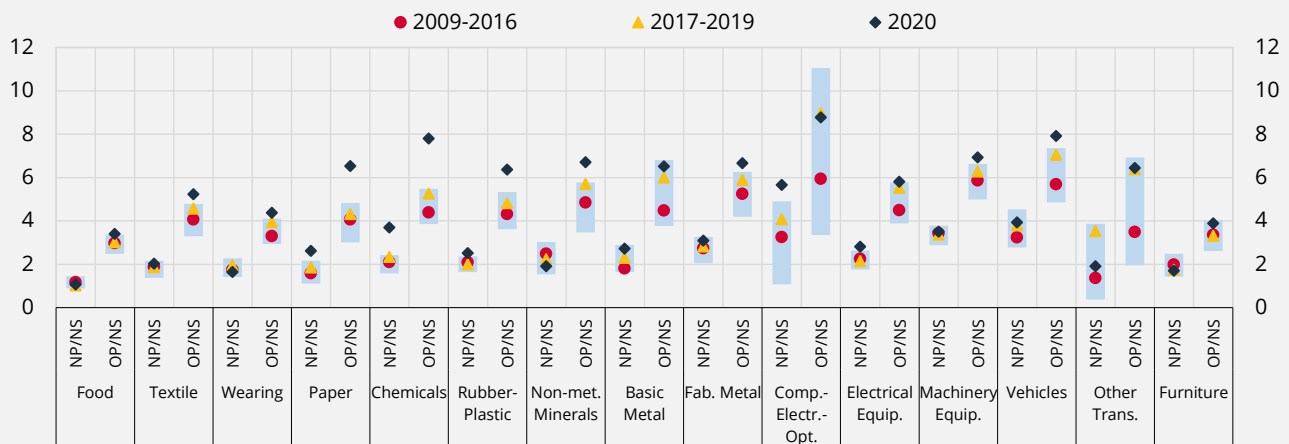


Source: RA, Authors' calculations.

The lower and upper bounds of the blue boxes in the chart show the lowest and highest values of the relevant ratio in the 2009-2019 period, respectively. In the calculations for 2020, temporary income statement data for the first three quarters are used.

The profitability of firms with an export share above 20% is higher than the profitability of non-exporter firms or firms with a low export share (Chart 6). While profitability averages of the 2017-2019 period exceeded those of the 2009-2016 period in many sectors, profit ratios hit the highest levels in 2020. In this group, the effect of financing expenses on profitability is more limited. So, in addition to operating profitability, net profitability also increased in 2020.

Chart 6: Manufacturing Industry Firms' Profitability with an Export Share Above 20%



Source: RA, Authors' calculations.

The lower and upper bounds of the blue boxes in the chart show the lowest and highest values of the relevant ratios in the 2009-2019 period, respectively. In the calculations for 2020, temporary income statement data for the first three quarters are used.

As a result, in the 2017-2019 period, which was marked by accelerated depreciation in the real exchange rate, the operating profit and net profit of non-exporting firms decreased compared to the 2009-2016 average. In the 2017-2019 period, while the profitability loss of firms with low export shares was more limited, the profitability of firms with high export shares exceeded the average of previous years. In 2020, while profitability increased across the manufacturing industry, comparatively more significant increases were seen in the paper products, chemical and computer, electronics and optics sectors, which were affected relatively positively by the pandemic.