Regional differences in the economic vulnerability to the current COVID-19 crisis in Austria

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In a new brief analysis, WIFO's research group Structural Change and Regional Development investigates differences in the extent to which Austrian regions are affected by the current COVID-19 crisis. According to this analysis, more than two thirds of Austrian employees are currently employed in industries that are strongly or very strongly affected. Tyrol and Salzburg are most affected among Austrian Länder.

Against the background of the massive economic impact of the COVID-19 pandemic and the measures taken to contain it, this paper presents an assessment of the relative vulnerability of the economy of Austrian federal provinces to the current crisis phase. The analysis is based on a scale recently developed by the Austrian Institute of Economic Research (WIFO) to assess the extent to which individual economic industries are affected by the measures taken to contain the spread of COVID-19, and a transfer of this scale to the sectoral structure of individual regions (Länder).

The classification of 88 ÖNACE two-digit industry divisions (national classification of economic activities) according to their economic vulnerability is based on a five-level scale from "not affected" (1) to "very strongly affected" (5). Industry groups are defined as "strongly (very strongly) affected" if they are currently unable to operate or can only operate to a very limited extent due to the measures taken and if it is (not) likely that they will be able to make up for the business they have lost at a later date. In addition, the classification considers demand-side restrictions due to declines in exports or (a change of) the consumption behaviour of private households as well as supply-side restrictions due to production disruptions caused by supply chain interruptions or delays. The results of the assessment (in detail and summarized for more aggregated economic sectors) as well as the criteria applied to classify the economic vulnerability of industries can be found in the WIFO Working Paper "Regional Differences in the Economic Vulnerability to the Current COVID-19 Crisis in Austria".

Based on the developed industry typology and the sectoral structure of Austrian Länder, it can be derived to which extent the individual regions are affected by the current COVID-19 crisis. Figure 1 shows the shares of employees that work in differently affected industry groups in individual Länder and for Austria as a whole, and thus provides information about the relative affectedness of each region. Figure 2 depicts the absolute number of employees working in differently affected industry groups in Austria.
In total, about one third of persons employed in Austria work in sectors which, according to our assessment criteria, are not economically affected or only moderately affected by the current crisis phase. Conversely, strongly and very strongly affected industry groups, i.e. those that are currently unable to carry out their business activities due to the measures taken, account for 28.2 percent of Austrian employees. This means that in the whole of Austria, about 1,320,000 persons employed can be attributed to industries that are currently strongly or very strongly affected.

Figure 1: Percentage of employed persons in industry groups with degrees of affectedness 1 to 5 per Länder

Percentage shares

Source: WIFO calculations.
Among Austrian Länder, Upper Austria (23.8 percent) and Lower Austria (26.4 percent) have the lowest share of employed persons in industries that are strongly or very strongly affected. By contrast, in Tyrol (34.4 percent) and Salzburg (33.2 percent), the highest share of employees is working in industries that are economically strongly or very strongly affected by the current COVID-19 crisis. The ranking of Austrian regions at both ends of the scale is driven by the regional importance of the only moderately or considerably affected manufacturing industry (with partly large employment shares), and that of the retail as well as tourism and leisure industries with its particularly high degrees of affectedness.

Despite considerable differences in regional economic structures, most Austrian Länder are similarly affected. Thus, specialization advantages and disadvantages in economic industries that are more or less vulnerable to the current crisis seem to largely cancel each other out. Due to that and given the overall high degree of economic affectedness in all Austrian regions – two thirds of employees in Austria work in industries that are currently strongly or very strongly affected –, horizontal economic policy measures with a broad sectoral impact should be prioritized at the moment. In their implementation, however, such measures will have to be adapted to the respective regional context in order to achieve an optimal effect.


Link to an interactive map (in German) with most important results for the Austrian Länder.

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