

Effect of the COVID-19 crisis on employment in the Spanish economy

SARS CoV-2¹ is one of the few coronavirus diseases² to cause severe acute respiratory syndrome³. The first cases of the disease were diagnosed in China in late 2019; hence, its name tag: Covid-19. The measures adopted in China initially involved confining the entire Hubei province, thus blocking part of the country's production and exports and cutting supply chains to the west. This represented in the first instance a supply shock, though one that would be moderated by being limited to certain sectors, essentially automobiles and machinery. The arrival of the disease in Europe and the rest of the world – transformed by this time into a pandemic – led to the adoption of equally drastic measures, which now meant a general supply shock. But the confinement of the population has resulted in an additional demand shock, one that appears to be of even greater importance, were that possible, since the limited supply available (above all in a number of specific services) has to contend with almost non-existent demand. The impact of all this on employment is and will continue to be substantial.

Here, our attempt to calculate the job losses suffered by the Spanish economy as a result of the economic crisis caused by Covid-19 has to contend with numerous uncertainties. First and foremost, we have to address the unpredictability of the duration and the intensity of the shock. The duration is clearly dependent on just how long the lockdown will be in place and the time needed to reduce the risk of contagion so that economic agents can begin to restore a preceding normality. The intensity of the shock will then depend on the spending behaviour of economic agents, which will be conditioned by their income during the period and by the uncertainty surrounding the post-confinement situation. Yet, we have minimal information on many of these factors, while most are affected by enormous uncertainty.

Despite this, here, we have opted to consider one sole scenario with one central hypothesis, so that we can estimate a single figure in reference to that scenario. First, therefore, we need to describe this scenario and its related hypotheses so as to understand the figures we obtain.

Available information suggests that a partial de-escalation of the period of confinement will begin as of April 26, limiting the lockdown to a month and a half; however, estimating the duration of the return to economic normality is not so easy. June 30 has been mooted as the general limit date, above all in relation to various transport services, activities related to the property market and mass cultural and sports events, while as far as a series of activities related to tourism is concerned (including some transport services, and accommodation and food services) normality is not expected to be restored until after the summer. Here, we do not consider a second outbreak of SARS CoV-2 in the autumn as this would constitute a different shock to the current one.

The methodology applied is input-output analysis, given that the main restriction is on the demand side, resulting from the lockdown and the subsequent fear of contagion. It allows us to capture the direct effects of this fall in demand, the indirect effects due to a reduction in consumption of inputs and, in its extended version, the effects induced by the drop in income of workers that lose their jobs.

Here, we differentiate the intensity of the impact according to the branch of activity. In short, the primary sector and the food industry do not register any direct losses; in the manufacturing industry, we distinguish those that suffer a fall in demand (textiles, clothing and footwear, for example) from those in which it is simply postponed (vehicles and household appliances, for example) or which register an increase (pharmaceuticals, plastics, consumer chemicals). In the vast majority of services, marked losses are assumed due to the fall in demand.

The methodology applied is that of input-output analysis, deemed the most appropriate as the main restriction here is on the demand side, resulting from the lockdown and the subsequent fear of contagion. It also allows us to capture the direct effects of a fall in demand on a large number of productive branches (64 in total). However, the methodology is also suitable for calculating the indirect effects generated by a fall in the consumption of inputs by the sectors directly affected by the crisis. Additionally, in its extended version, input-output analysis allows us to quantify the effects induced by the drop in income of those workers that lose their jobs in a range of sectors due to both direct and indirect negative impacts. As such, the methodology makes it possible to quantify all possible negative effects on employment resulting from the fall in demand attributable to Covid-19. However, to the extent that a part of the goods and services demanded and the inputs used are imported, some of this fall in demand affects foreign markets and has no negative internal impact. To take this into account, the methodology used (employing technical coefficients of internal production and the internal final demand vector) enables us to obtain exclusively the effects within the Spanish economy.

¹ SARS CoV was first identified in 2002.

² The name 'coronavirus' is derived from the Latin word corona meaning crown, the spicules emerging from the virus' rounded surface giving it a crown-like appearance.

³ That is, SARS.

It should be borne in mind that input-output analysis requires a hypothesis for each demand component, which has meant having to design specific hypotheses for each element. Without seeking to be exhaustive, suffice it here to mention that household consumption is assumed to follow the sectoral pattern summarized above, and that public consumption is characterized by relative stability, with the obvious increases in pharmaceuticals and healthcare. In the case of investment, we assume its virtual stagnation during confinement and a return to normality in the summer. In the case of exports, we assume a significant fall during confinement as well as in the months that follow, on the understanding that in many countries the measures to combat the pandemic were implemented later than in Spain. In the case of the export of services related to tourism and travel and related activities, we have assumed that this summer they will be greatly affected by the widespread fear of taking foreign holidays.

One final, and obviously relevant, factor to take into consideration here are all the measures being taken to bolster employment (including temporary furloughs – *expedientes de regulación de empleo temporal* or ERTEs – the extension of temporary contracts and temporary restrictions on dismissal) and to shore up income (including unemployment benefits without reducing the period of computation, benefits for part-time workers without a sufficient number of contributions, and extraordinary benefits for the self-employed and domestic workers). As the deadline for applying for these benefits has yet to fall due, the total number of workers eligible for this aid is still unknown, so here we have opted to use the information available as of the end of March. The measure that is likely to have the greatest stabilizing effect on employment are the ERTEs (with 1.5 million workers affected by the ERTEs requested up to March 31, compared to 50,000 self-employed who have requested benefits). These furloughs ensure employment contracts are maintained and affect, above all, permanent employees. For this reason, we have distributed the latter by sector, in order to reduce the destruction of direct and indirect employment, taking into account the corresponding employees and temporary rates.

Finally, it should be noted that the results obtained refer to annual jobs, which means the outcomes cannot be compared with data for shorter time periods. Furthermore, the figures do not refer to number of individuals affected, but rather full-time equivalent jobs.

In the scenario described, the crisis derived from Covid-19 could spell the loss of almost one million three hundred thousand jobs (1.27 million to be exact), that is a fall of 6.9% on 2019 employment figures. The distribution of this loss by sector is logically uneven, given the variation in the impact of the crisis in terms of duration and intensity and the fact that the number of people employed by sector is also highly uneven: 81% of job losses would correspond to the services sector, 11.6% to industrial activities, 5.4% to the construction sector and the remaining 2.1% to the primary sector. The productive branches set to suffer the greatest losses of employment in absolute terms are the accommodation and food services sector (274,000) and the commercial (retail) sector (269,000), both hit hard by the drop in consumption, the fall in foreign tourism this summer and the overall decline in economic activity. Transport and auxiliary activities are set to lose some 87,000 jobs due to the fall in travel demand, the collapse of tourism and the general decline in economic activity. Another sector with a significant loss of employment will be that of construction (68,000) due to a reduction in investment and the downturn in the housing market caused by the destruction of jobs throughout the Spanish economy. Job losses will also be high in many tertiary activities characterized by service provisions to different types of company and by their highly work-intensive nature,

Covid-19 could spell the loss of 1,300,000 jobs/year. The greatest losses will be registered in the accommodation and food (274,000) and commercial sectors (269,000), both hit hard by the drop in consumption, the fall in foreign tourism this summer and the overall decline in economic activity.

such as security and administrative services (58,000), sports, recreational and entertainment services, as well as other personal services (more than 30,000 in both cases).

Two final comments to conclude

The figures presented above have been obtained for the set of specific economic conditions outlined at the beginning of this brief: specifically, that the duration of the lockdown is not extended much longer, that normality is restored in general in the summer and that those activities that continue to be affected during these months return to economic normality in October. Likewise, it is assumed that the international economy will have made a full recovery by that date. There are reasons to believe that any change to this calendar would involve prolonging the duration of the recession, which would generate a greater loss of employment than that calculated here.

The figures resulting from our calculations incorporate the correction applied from the measures of support adopted to date. This huge budgetary effort to sustain income and maintain jobs, in addition to being a significant social improvement, should ensure fewer jobs are destroyed. A figure that we calculate at more than 300,000 jobs. However, maintaining such high levels of public spending over time may have adverse macroeconomic effects on the volume of public debt (which is already high) and on the risk premium. Therefore, some form of supranational financial support is essential to limit these risks. In the absence of any European agreement, the correction of the budgetary imbalance would, sooner rather than later, force a reduction in this public support, leading to a significant additional destruction of jobs. Much is at stake during these first weeks of April.