

The COVID-19 outbreak boosts remote working

- Remote working has revealed itself as an effective mechanism for maintaining employment from home and ensuring the continuity of economic activity in the context of the COVID-19 outbreak.
- According to our estimates, 32.6% of all employees in Spain could potentially perform their work remotely.
- The COVID-19 outbreak will penalise each economic sector to a greater or lesser extent depending on its ability to implement remote working.

The health crisis brought about by COVID-19 has forced large parts of society to quickly and unexpectedly adapt to remote working, a relatively minority practice in Spain prior to the outbreak of the pandemic. In 2019, only 8.3% of those in employment in Spain opted to work from home, be it regularly or occasionally. This figure is well below the EU average (16.1%) and the euro area's leading economies in terms of remote working, such as the Netherlands (37.1%) and Luxembourg (33.1%).¹ How should we interpret these differences? Does Spain simply lack the potential to telework or, on the contrary, does the country have the potential but fails to exploit it?

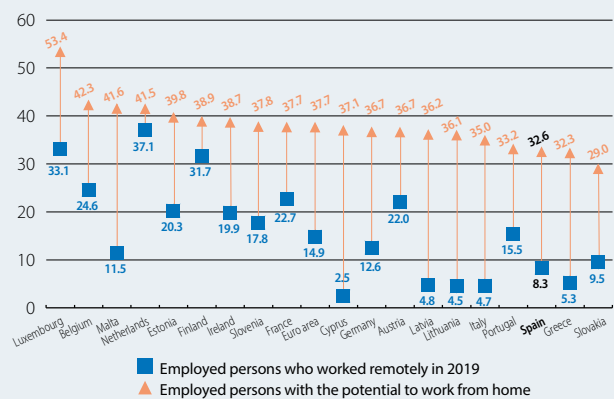
Is Spain prepared to telework?

The ease with which a worker can perform his or her duties from home depends on the requirements of his or her occupation. For example, a university professor can easily continue to teach his or her classes from home via video conferencing, whereas a waiter does not have the option of serving tables through digital platforms. In general, therefore, we must look at the tasks associated with each profession in order to assess whether it allows for the use of remote working. Dingel and Neiman (2020) propose a methodology according to which the potential to work from home in a given profession is determined by the type of activities performed and the context they are performed in.² Specifically, they deem an occupation as feasible to be performed remotely if none of the associated tasks are classified as challenging to be reproduced from home.³

Dingel and Neiman estimate that 37% of employees in the US can perform their work from home. Based on their classifications and data from the labour force survey (LFS), we can reproduce their estimates for Spain.⁴ According to our calculations, 32.6% of all employees in Spain could potentially perform their work remotely.⁵ Generally speaking, the potential for working from home

Remote working in 2019 versus working from home potential

(% of total employment)



Source: CaixaBank Research, based on internal calculations and data from Eurostat, the National Statistics Institute and Dingel and Neiman (2020).

is somewhat higher for women and increases with age and education level.⁶

From a European perspective (see first chart), the average potential of the former EU-28 (37%) is somewhat higher than that of Spain, a result of the high capacity displayed in highly-advanced countries with respect to remote work, such as Luxembourg (53.4%), Sweden (44.2%) and the United Kingdom (43.5%). The country to country differences largely reflect disparities in the sectoral compositions of their economies. Economies with a greater relative weight of high-value-added services (such as information and communications or financial services) have a greater potential for remote working than countries where sectors such construction, tourism or retail prevail, since remote working is more difficult in the latter sectors due to their very nature.⁷

Following on from this, looking at the relationship between the potential for remote working and the

1. Data from the 2019 EU Labour Force Survey. The figures shown reflect the percentage of workers who indicate that they either regularly or occasionally work from home.
 2. See I. Dingel and B. Neiman (2020) «How many jobs can be done at home» (<http://www.nber.org/papers/w26948>).
 3. Dingel and Neiman (2020) use data from the O*NET survey, which provides detailed information on the work context and generic activities performed in each occupation.
 4. Based on their classification for US occupations, we convert their data to the European system (ISCO-08) and aggregate them at a three-digit level, taking into account occupational shares. This conversion implicitly assumes that the tasks of each occupation are carried out in the same way in both Spain and the US.

5. Similar studies have been published both by the Bank of Spain (30.6%), and by Juan César Palomino, Juan Gabriel Rodríguez and Raquel Sebastián (33%). The small differences are the result of slightly different methodologies and data from different periods.
 6. The potential for remote working by age range is 22% (15-24 years), 33% (25-44 years), 32% (45-64 years) and 38% (65 years or older). By education level, it is 11.1% (those with lower secondary school studies), 23.5% (upper secondary level studies) and 51.2% (university graduates and above).
 7. Specifically, the two sectors with the greatest potential for remote working – information and communications, and financial and insurance activities (both 80%) – together contribute almost twice as much to the UK's GDP (12.5%) as they do to Spain's GDP (6.7%). This puts the UK in a better position to benefit from remote working.

potential economic impact of the COVID-19 pandemic is quite revealing. If we assume this impact to be the difference between the 2020 GDP growth forecasts published in October 2019 and in April 2020, we can see that those countries with a high capacity for teleworking appear to be least affected by the coronavirus shock (see second chart).⁸ While the economic consequences of the shock will undoubtedly depend on many variables, the potential of workers to perform their tasks from home is an important mechanism for mitigating the effects of the lockdown. Thus, the differences in the occupational and sectoral structure observed between different European countries will likely translate into a greater or lesser capacity to cope with the economic impact caused by social distancing measures.

To what extent has COVID-19 changed remote working habits?

As COVID-19 has spread and, as a result, lockdown measures have been tightened, companies have widely opted to employ remote working as a means by which to maintain employment and ensure the continuity of economic activity. The significant increase in the demand for tools that enable virtual communication is a clear sign of the substantial increase in teleworking since the state of alarm was declared. To name a few examples, daily users of Zoom (a software tool for conducting video calls and virtual meetings) have risen from 10 to 300 million in just five months; Google Meet and Microsoft Teams are among the five most downloaded applications in April and May, and Facebook has just launched its own video conferencing tool.

On the other hand, a survey conducted by the regional government of Valencia (Generalitat Valenciana) and a recent study by Eurofound offer a first indication of the magnitude of the current practice of teleworking in Spain. According to both analyses, since the lockdown measures were first imposed, around 30% of employees have been working remotely, a figure very close to the teleworking potential that we estimate for Spain.⁹ Likely, faced by the halt in economic activity due to the COVID-19 outbreak, firms and whole sectors have discovered capacities for remote working that have been left unexploited until just a few months ago.

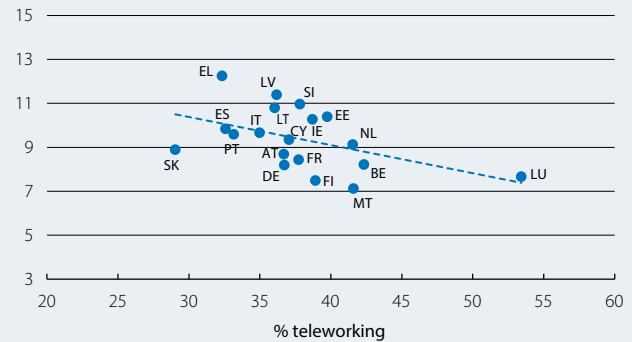
Teleworking potential and economic exposure to the COVID-19 outbreak by sector

Since remote working is an effective mechanism to mitigate the effects of the lockdown, the COVID-19 outbreak is penalising each economic sector to a greater or lesser extent depending on its ability to implement

8. IMF. «World Economic Outlook» of October 2019 and April 2020.
 9. The sample by the Generalitat Valenciana includes only those people who have gone to work since 1 March. Specifically, the percentage fell from 36.9% in the first edition (29 March) to 18.9% in the most recent one (14 May). For the Eurofound study, see «Work, teleworking and COVID-19». The publication of the labour force survey for Q2 2020 will provide more detailed information on the spread of remote working in Spain in recent months.

Teleworking potential and fall in the IMF's GDP forecast

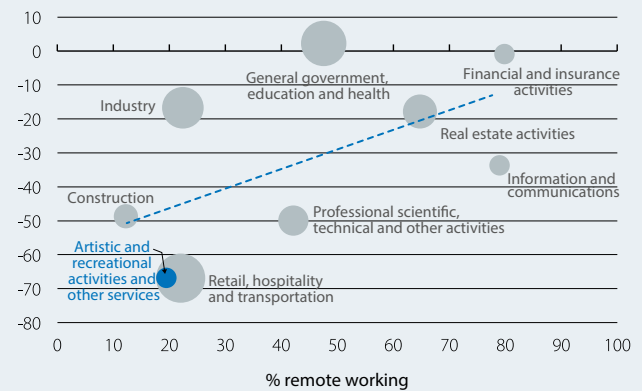
Fall in the 2020 GDP growth forecast between October 2019 and April 2020 (pps)



Source: CaixaBank Research, based on internal calculations and data from Eurostat, the IMF, the LFS and Dingel and Neiman (2020).

Remote working potential and economic impact by sector

Shock suffered in March (%)



Note: The shock has been calculated according to the methodology described in note 10 of this article. The size of the dots reflects the sector's relative weight as a proportion of total GDP. The agricultural sector is excluded.

Source: CaixaBank Research, based on internal calculations and data from Eurostat, the National Statistics Institute, the LFS and Dingel and Neiman (2020).

working from home.¹⁰ As can be seen in the third chart, those sectors that suffered the largest economic impact of the COVID-19 outbreak in the closing weeks of March are characterised by a lower potential for remote working. By contrast, real estate, telecommunications and financial services possess a greater potential for remote working and have managed to maintain a higher degree of activity.

On the other hand, within each sector there are occupations that have a greater potential than others for performing tasks from home. For instance, in the field of scientific and technical activities, we estimate that university professors can do 98% of their work from home, while the figure is only 34% for physics and

10. We classify sectors according to the magnitude of the shock they have suffered. In particular, we estimate the deviation of the gross value added (GVA) for each sector in Q1 2020 from that which would have been expected in the absence of COVID-19. In order to project the GVA that «would have been expected», we assume that its growth in Q1 2020 would have been equal to the average quarter-on-quarter change exhibited in 2019.

engineering technicians. Therefore, the relative distribution among occupations within each sector has a decisive impact on the sectors' overall potential.

Moving towards a future in which teleworking will become a common practice

Remote working has revealed itself as a fundamental component of economic activity, given the situation we are currently experiencing. Those companies that are able to successfully implement its practice are able to sustain their productive capacity more firmly. In other cases, the potential exists, but investment in the necessary digital capital is required (such as business infrastructures and mobile devices that allow for internet connections), as well as in human capital (staff training in the use of digital tools). After the coronavirus crisis, companies are likely to redouble their efforts in the field of digital transformation, which could facilitate the continued growth of remote working. Furthermore, what we have learnt during the long weeks of lockdown will likely facilitate the implementation process.

In this regard, the benefits of working from home can go far beyond the coronavirus crisis. An increase in remote working could facilitate more flexible working conditions, which would give people the opportunity to find a better balance between their working and family lives, or the possibility to live in areas further away from large cities. In other words, as briefly discussed in the Dossier of this same *Monthly Report*, simple measures such as the application of teleworking could bring about a better quality of life, as well as less congested and cleaner cities.

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