

DISCUSSION PAPER SERIES

IZA DP No. 13869

**The Spanish Labour Market at the  
Crossroads: COVID-19 Meets the  
Megatrends**

Juan J Dolado  
Florentino Felgueroso  
Juan F. Jimeno

NOVEMBER 2020

## DISCUSSION PAPER SERIES

IZA DP No. 13869

# The Spanish Labour Market at the Crossroads: COVID-19 Meets the Megatrends

**Juan J. Dolado**

*Universidad Carlos III de Madrid, CEPR and IZA*

**Florentino Felgueroso**

*Fedea*

**Juan F. Jimeno**

*Banco de España, CEPR and IZA*

NOVEMBER 2020

Any opinions expressed in this paper are those of the author(s) and not those of IZA. Research published in this series may include views on policy, but IZA takes no institutional policy positions. The IZA research network is committed to the IZA Guiding Principles of Research Integrity.

The IZA Institute of Labor Economics is an independent economic research institute that conducts research in labor economics and offers evidence-based policy advice on labor market issues. Supported by the Deutsche Post Foundation, IZA runs the world's largest network of economists, whose research aims to provide answers to the global labor market challenges of our time. Our key objective is to build bridges between academic research, policymakers and society.

IZA Discussion Papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available directly from the author.

ISSN: 2365-9793

**IZA – Institute of Labor Economics**

Schaumburg-Lippe-Straße 5–9  
53113 Bonn, Germany

Phone: +49-228-3894-0  
Email: [publications@iza.org](mailto:publications@iza.org)

[www.iza.org](http://www.iza.org)

## ABSTRACT

---

# The Spanish Labour Market at the Crossroads: COVID-19 Meets the Megatrends\*

This paper reviews the experience so far of the Spanish labour market during the Covid-19 crisis in the light of current institutions, past performance during recessions, and the policy measures adopted during the pandemic. Emphasis is placed on the role of worldwide trends in labour markets (automation and AI) in shaping a potential recovery from this (hopefully) transitory shock through a big reallocation process of employment and economic activity.

**JEL Classification:** J64, J68

**Keywords:** epidemic, COVID-19, dual labour markets, flows, recessions

**Corresponding author:**

Juan J. Dolado  
Universidad Carlos III de Madrid  
Calle Madrid, 126  
28903 Getafe, Madrid  
Spain  
E-mail: dolado@eco.uc3m.es

---

\* Dolado thanks financial support from the Spanish Ministerio de Economía y Competitividad (grant ECO2017-83255-C3-P), and Fundación BBVA (Ayudas a Equipos de Investigación Científica Sars-Cov-2 y Covid-19). The views expressed in this paper by Jimeno should not be interpreted as reflecting the views of the Banco de España.

## 1. Introduction

As in past recessions, the Spanish labour market has been one of the worst hit by Covid-19 worldwide. The response to the pandemic has led to sharp falls in labour demand in many sectors. Non-essential retail, hospitality and leisure businesses have been closed down at different stages, and industries like air travel have largely halted due to restrictions. These sectors alone employed over 6.3 million workers in Spain (more than 30% of total employment) on the eve of the crisis. By adding in the knock-on effects of these closures on other industries in those sectors' supply chains, the proportion of the Spanish workforce left jobless is at risk of rising to unprecedented heights. Policy responses have been focused heavily on preventing severance of employment ties in struggling sectors (essentially, encouraging "labour hoarding" by subsidizing short time work and furloughs) while protecting the incomes of those workers by subsidizing their wages and extending loans and cash grants to firms in badly hit sectors.

However, most of these phenomena have occurred in most countries and their labour market outcomes have responded in a much smoother way than in Spain. In this paper we review the determinants of this poor performance by analysing the institutions in place, how the Spanish labour market fared in previous recessions, the specifics of the current policies to respond to Covid-19, and the challenges ahead given the new megatrends underway (digitalization, robotics and AI, platform economy, etc.) Some policy recommendations are also provided to efficiently resume post-crisis recovery. Hence, to a far greater extent than in a typical downturn, the current crisis is not simply a general slowdown in economic activity but may also mean a somewhat radical shift in the mix of economic activities at a time of accelerated technological change. This points towards the need not only to find ways of insuring workers being furloughed or losing their jobs, but also for an urgent reallocation of some of these workers to other sectors that the megatrends are pushing.

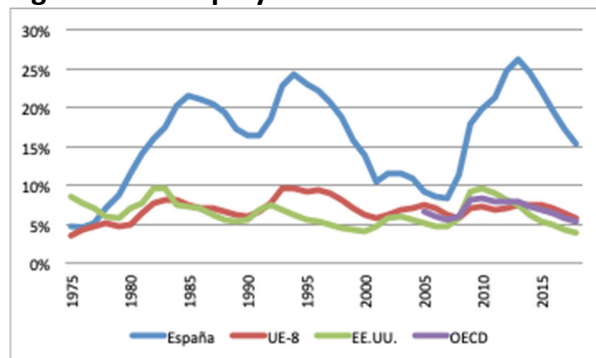
The rest of the paper is organized as follows. Section 2 briefly reviews existing labour market regulations in Spain and their roles in explaining past performances in other recessions. Section 3 focuses on the effects of the current epidemics, paying particular attention to flow data among different labour market states. Finally, Section 4 provides a speculative look at both the prospects of the post-Covid-19 era and innovations to employment and social policies that might be required to promote growth and reduce inequalities.

## 2. Labour market institutions and past performance

Over the last four decades the performance of the Spanish labour market has been (and still remains) highly dysfunctional. Among its most worrying features prior to the pandemic crisis, the following stand out:

- A much higher and volatile unemployment rate than in most developed countries (Figure 1). During the last three decades it has reached an average of 17.3% (compared to 7.6% in the EU and 5.2% in the US), while only in two instances (2006-07) converged to the average unemployment rate of the EU (8%). Its standard deviation doubles (triples) that of the US (EU) unemployment rate. In 12 of the last 30 years it has exceeded 20%, a dramatic figure by all means, that may be reached again by the end of 2020. The bulk of the policies aimed at fighting unemployment have been mostly devoted to passive measures (unemployment insurance and assistance), with a low efficacy of active labour market policies, which has led, among other factors, to high structural unemployment. Weaknesses of these policies at dealing with job reallocation were most apparent during the early 1980s, when an intense job reshuffling process in manufacturing took place in preparation for membership in the EU, and after the Great Recession, when the bursting of a housing bubble led to a downsizing of the construction sector.

**Figure 1: Unemployment rates**

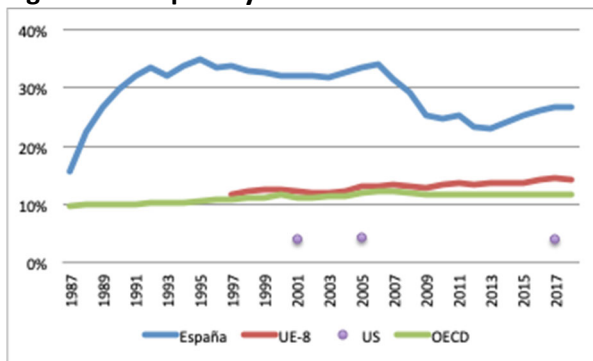


Source: OECD

- A high degree of dualism (Figure 2), with a large share of temporary employment contracts (TC) among employees (33% before the Great Recession and 25% by 2019, after the destruction of 1.8m of temporary jobs during the previous crisis, out of which only 1.2m were subsequently recovered. The rate of temporary work far exceeds those in other EU countries with a similar weight of sectors where TC is in high demand (agriculture, hospitality, construction, tourism, etc.). This excess in TC was mainly due to the gap in employment protection legislation (EPL) between workers under open-ended contracts (OEC) and those with TC, both in terms of statutory severance pay and legal

uncertainty (red-tape costs).<sup>1</sup> Faced with this gap, the role of TC as a screening device for workers' skills has given way to a simple labour cost-reduction device.). Despite a long string of reforms (52 in total), all these conditions have not yet been met in Spain. Employers carry out 90% of monthly hiring through TC, and Spain is the country with the highest transition rate from temporary employment to unemployment and the lowest conversion rate from TC to OEC (less than 10%) within the EU. For more details, see Bentolila et al. (2020). Were wages flexible enough and workers risk neutral, most of these costs could be passed onto wages (leading to a steeper wage-tenure profiles) with neutral effects on employment (see Lazear, 1990)

**Figure 2: Temporary work rates**



Source: OECD

- Lack of wage flexibility (mostly before the 2012 labour market reform). Both during the collapse of the European Monetary System in the first half of the 1990s and the Great Recession in the late 2000s, labour market adjustments in Spain have operated through quantities rather than prices (the unemployment rate skyrocketed to 24% and 27%, respectively, in these two downturns). This was due to the prevalent sectoral/province collective bargaining system at the time, inherited from the democratic transition period (see Dolado, 2017). On the one hand, wage setting at the sector level gives rise to higher pressure on wage mark-ups over nominal productivity, compared to bargaining at the firm or nationwide levels (see Calmfors and Driffill, 1998). On the other hand, given that workers under TC are a marginal group of voters in trade

<sup>1</sup> In a nutshell, while the dismissal of workers under OEC entail higher severance pay and could be declared unfair by labour courts, the non-renewal of TCs at their termination dates cannot be appealed and the compensation is lower (though the same as for OECs in case of dismissals). However, severance pay for unjustified dismissals was reduced to 33 days per year of service, with a maximum of 24 months' pay (previously, 45 days and 42 months) in the 2012 labour market reform, though red-tape costs remained. In cases of collective dismissal, the need for administrative authorisation was eliminated. Finally, a new OEC was introduced for firms with less than 50 employees which entailed no dismissal compensation for the first year and offered generous tax incentives. None of these measures succeeded in reducing TC.

union elections, unions favoured the interests of permanent workers. The underlying rationale for this insider-outsider behaviour was the expectation that, in the face of rigid wages, firms would implement workforce adjustments mainly through the non-renewal of TCs, being a much cheaper procedure than individual or collective dismissals of workers under OEC. Given that temporary workers had typically lower qualification and received less on-the-job training than workers under OEC due to their less-stable contacts, wage differentials have been growing (see Cabrales et al. 2017).

- Labour market institutions are also partly behind the poor productivity dynamics in Spain over the last decades, with negative TFP growth rates for much of the 2000s. In relation to other countries, the productivity gap between business start-ups and established firms is higher, while fastest growing firms are not necessarily the most productive (see Moral-Benito et al., 2019). These two features result in a large number of small-sized unproductive firms (with 40% lower TFP than in the EU-5) with lower survival probability than a relatively small group of large and more efficient corporations, but less so than in EU-5 (10%). On top of innovation capacity, sectoral composition, access to funding and product market regulations, the most relevant factor behind productivity is scarcity of human capital. In this respect, the excessive labour market segmentation in Spain does not facilitate on-the-job training of temporary workers since employers abstain from investing on them given their short-term job tenures. The EPL gap creates an incentive to hire this type of workers in sectors where TC can be widely used. Before the Great Recession, this led to the upsurge of the construction and ancillary sectors as the engines of the Spanish economy (about 20% of GDP). The push from these sectors caused strong wage growth in less-skilled occupations that raised the school dropout rate, exacerbating low productivity (see Bonhomme and Hospido, 2017). During the subsequent slump, their inflows to unemployment were massive, making long-term unemployment a chronic phenomenon (62% of the unemployed in 2014 and 36% nowadays).

### **3. The Covid-19 crisis**

The pandemic caught the Spanish economy with symptoms of economic slowdown and a lesser push from the foreign sector due to the trade war between China and the US. A central feature of all recessions is a positive co-movement among output, hours worked, consumption, and investment. In this respect, the COVID-19 recession (Great Contagion) is not unique.

Most macro models of the Great Contagion that integrate the epidemiological (SIR) process take for granted that the virus generated both negative demand and supply shocks by reducing consumption and labour supply in order to reduce the risks of infection (see e.g. Eichenbaum et al., 2020, and Kaplan et al., 2020). What type of shock dominates depends on whether prices/wages are fully flexible (neoclassical RBC model) or sticky (new Keynesian model). Typically, the neoclassical model (where output is supply-determined) fails to generate a positive co-movement between investment and consumption since people shift consumption today (save and invest more) to tomorrow. The fact that consumption and investment have plummeted in Spain (reductions of -6.8% and 12.3%, respectively, relative to 2019, while working hours so far have fallen by about 6.2 pp.) and a strong deflation has not happened yet, points to a balanced combination of both shocks in a sticky-price environment.

Although it is still too early to reach definitive conclusions, three quarters of data on the effects of the pandemic indicate that past adjustment patterns could be repeated. So far, job destruction under TC and OEC have reached, respectively, 11.6% and 1.9% since 2019Q4. However, in labour market terms, the main difference during the current slump and the previous one has been the use of furlough/short time working options (STW, ERTes in Spanish) by employers to reduce costs in the face of slackened demand for their products or services. In contrast to the Great Recession where the shock on real estate was of a permanent nature (as many houses were built each year in Spain as in France, Germany and Italy, all together!), these schemes can now save jobs, and many employees would prefer to keep their jobs, even if the result is a temporary pay loss.

The key dimension of heterogeneity for economic exposure to the pandemic in most countries is occupation (see Section 4 below). Workers in occupations that both require social interaction, and are not flexible enough to work remotely (such as travel, accommodation, transportation, beauty, fashion, restaurants and leisure activities) have experienced especially large drops in their earnings. In contrast, the earnings of workers in those occupations that do not require social interactions, and have high flexibility to telework (such as lawyers, academics, and financiers) have been left relatively unscathed. Whether these different labour market experiences translate into persistent differences in economic welfare depends on households' financial vulnerability. The evidence in this respect is that there is a strong positive correlation between economic exposure to the pandemic and financial vulnerability suggesting extremely unequal effects across the population (see Glover et al, 2020).

### **3.1 Employment policies during the Covid-19 crisis**



The pandemic has had a large impact on the labour market performance, both in aggregate stocks and in worker and job flows. Using Labour Force Survey data (EPA), Figures 3 and 4 display changes of these indicators in millions of people and in quarterly rates, respectively.

Three remarkable features stand out:

- Employment has fallen by 1.34 million people (14.2%) in two quarters (between 2019Q4 and 2020Q2), while it took 17 quarters to achieve such a crash (between 2007Q3 and 2011Q4) in the financial crisis. By 2020Q3, slightly more than half (52.5%) of these job losses have been recovered, but the cumulated loss relative to 2019 still reaches 4.1%.

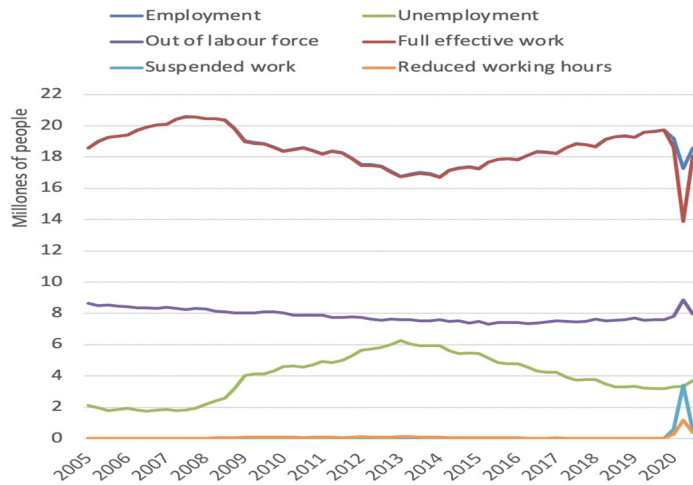
- Unlike the Great Recession, employment protection mechanisms have been activated involving STW programs, such as the Temporary Employment Regulation scheme and those that allow firms to temporarily suspend contracts or reduce the working time of part or all of their employees, the so-called ERTes. In addition, the Extraordinary Benefits of Termination of Activity programme for the self-employed (and also for discontinuous OECEs) allowed these workers to remain employed and keep their status as Social Security affiliates.

According to social security data, in April 2020, workers protected by ERTes reached a maximum of 3.4 million (24.2% of the workers affiliated to the General Regime) and 1.5 million self-employed workers attended the cessation of activity (a 46.7% of those affiliated to the Special Regime for Self-Employed Workers at the end of May 2020). By September 2020, ERTes covered 729 thousand workers. The data on benefits, reaches about 4 million initial registrations due to suspension ERTes, and 900 thousand in suspension of contracts.

According to EPA, on average, about 4.6 million people in 2020Q2 were enrolled in ERTes or partial unemployment. If this figure is added to the net job destruction, the number of people who have actually worked (Full Effective Work, FEW) decreased by 5.9 million (29.7% less) in 2020Q2 relative to 2019Q4. In 2020Q3 there were still 1.7 million fewer people than in 2019Q2 (8.5% less).

- There has been a labour force reduction. The number of inactive people between 16 and 64 years of age increased by about 1.3 million (16.9%) compared to 2019Q4, while in 2020Q3, this figure was still 5.1% lower than 2019. This fall initially slowed down the rise in the number of unemployed, although in 2020Q3 these were still 16.3% more than in 2019Q4.

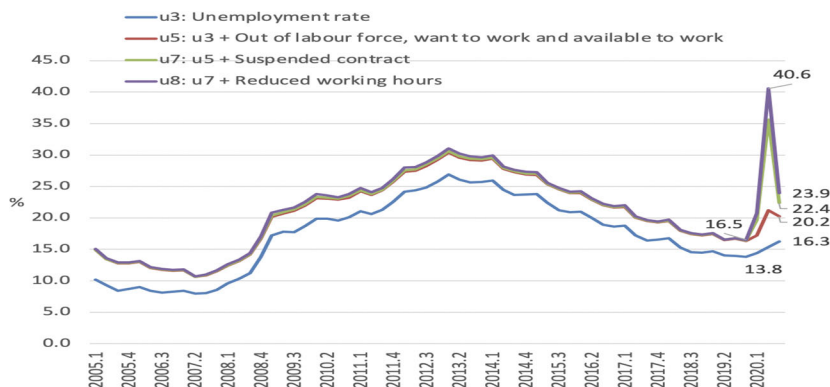
**Figure 3: Employment, Unemployment, Inactivity and STW schemes (millions, 2005Q1-2020Q3)**



Source: EPA

The above-mentioned features undermine the role of the unemployment rate as a good indicator of the underutilization of labour during this pandemic. The official unemployment rate barely increased by 2.5 pp. since 2019Q4, due to both the fall in activity (and therefore in the number of unemployed) and the STW schemes. However, following the methodology of the U.S. Bureau of Labor Statistics (BLS), Figure 4 displays alternative indicators to the conventional unemployment rate. In addition to the standard definition (ILO conventions), the following groups are added to the unemployed: (i) those who do not search (due to the lockdowns) but are available to work (u4), (ii) those covered by ERTE for suspension of contract (u5), and (iii) those with reduced working hours due to ERTEs(u6). This broader unemployment rate reached 40.6% in 2020Q2, falling to 23.9% in 2020Q3, still 6.4 pp. higher than in 2019Q4.

**Figure 4: Alternative measures of labour underutilization (2005Q1-2020Q3)**



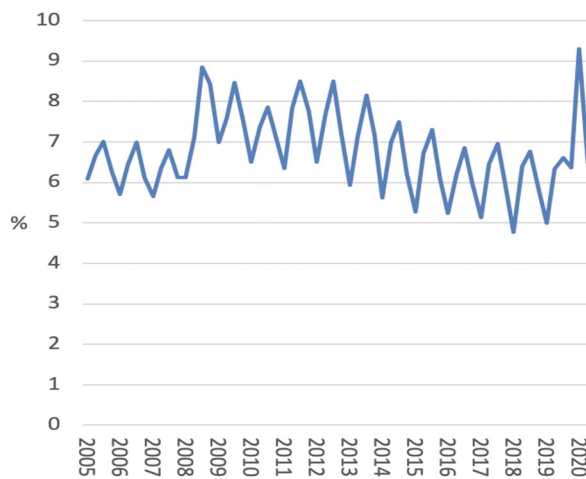
Source: EPA

Better understanding of the channels through which these outstanding swings in labour market slack have occurred requires a dynamic analysis looking at worker and job flows.

### 3.2. Transitions from employment to non-employment during the first wave of the Covid-19 crisis

Despite the use of employment protection schemes, outflows from employment (E) to non-employment (UI, where unemployment and inactivity are lumped together), denoted EUI, reached historical highs in 2020Q2, practically doubling those in 2019Q2, and exceeding by far those during the Great Recession (Figure 5).

**Figure 5: Employment outflow rate (2005Q1-2020Q3)**



Note: (\*) % Quarterly transitions from employment to non-employment. Source: EPA (INE)

Consensus forecasts had anticipated that Spain would suffer a greater relative impact from the lockdown and social distancing rules than the other EU/ OECD member countries. This is due to its peculiar sectoral and occupational structure, the characteristics of its working-age population (e.g. lower educational attainments and skills for teleworking) and a large fraction of small firms.

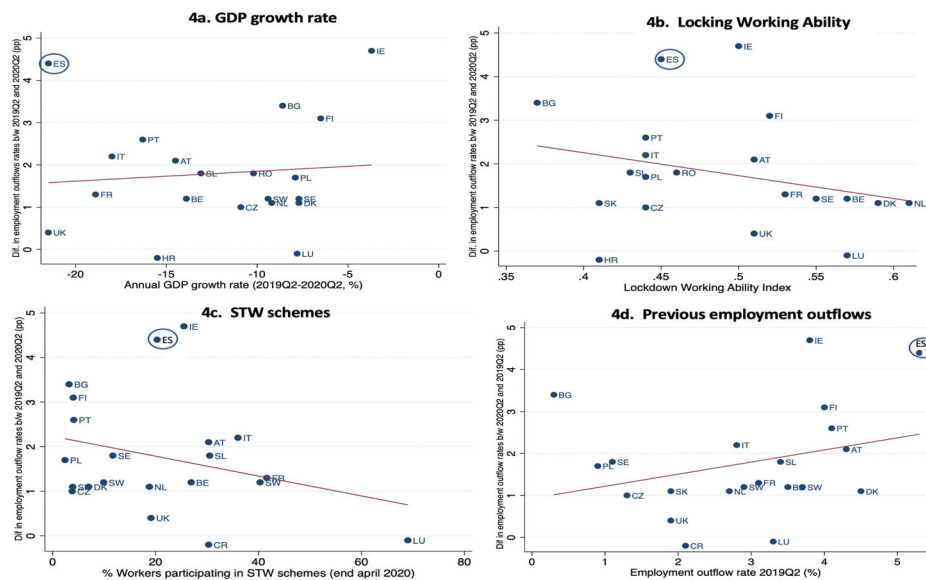
Cross-country GDP and employment figures for 2020Q2 seemingly confirm the diagnosis of these initial predictions. Figure 6 shows the relationship in 2002Q2 between the year-to-year rise in quarterly employment exit rates for several OECD countries and four alternative indicators: GDP growth (panel a), an index of workers' ability to cope. to lockdown (b), STW coverage (c) and previous job exit rates (d). Spain ranks as an outlier in each chart. First, in panel a there is no a clear correlation between the decline in output and the job destruction flows during the lockdown period. However, Spain leads the reduction in both indicators. Second, panel b shows that Spain experienced much

higher job destruction than other countries with similar or even lower indicators of teleworking adaptability. On the contrary, panel c shows that there is a clear correlation between the coverage rates of STW schemes and the ENE outflow. Finally, panel d shows the correlation between this increase in outflows in 2020Q2 and their lagged value in the same quarter of 2019.

Spain has reached a much lower coverage rate for STWs than, say, Austria, France, Italy or Switzerland, albeit much higher than Portugal. Yet, these gaps cannot explain such a striking difference in job shedding on their own. As already discussed, the insight for this poor performance is the high rate of temporary work in Spain. This is why quarterly transitions from employment to unemployment (EU) are substantially higher than elsewhere. In fact, during the first two weeks of the State of Alarm there was massive job destruction, with terminations of TC accounting for more than 75% of such job losses.

In sum, regardless of Spain being a candidate for a greater collapse in GDP than elsewhere, due to the large weight of sectors badly hit by the crisis, its much larger EUI and EU flow rates are due to its precarious industrial relations, which in turn limited the even wider use of STW schemes.

**Figure 6: Correlations between employment outflows and several indicators**

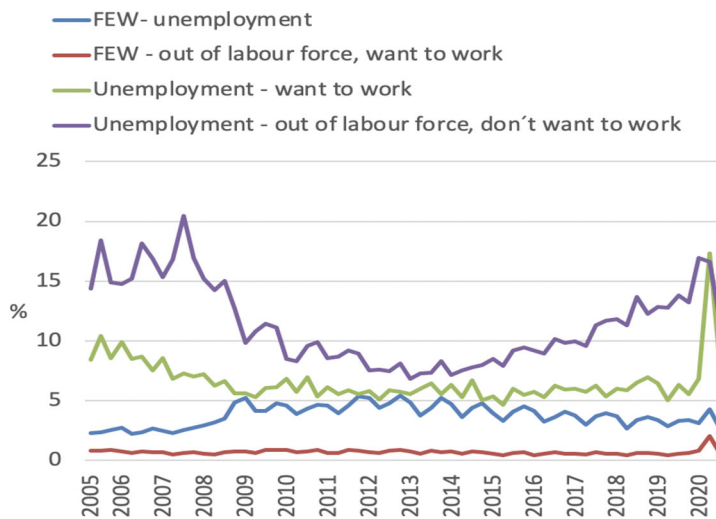


Sources: Eurostar (GDP and Employment Outflow rates), Lockdown Working Ability Index from Palmino, Rodríguez and Sebastian (2000), Worker participating in STW schemes computed for 2020Q2 with data from Müller and T. Schulten (2020).

### 3.3 Flows from employment to inactivity

As explained above, a peculiar feature of this pandemic has been the fall in LFP rates. Figure 7 shows the EU and UI transition rates, distinguishing between individuals who do not seek employment but wish to work and those who do not wish to work. The fact is that the rules of confinement, and probably the slowdown in hiring (and therefore the discouragement effect) have greatly altered the job search process. As can be seen, the fall in the workforce was driven by the increase in transitions from unemployment or employment to the group of people who are not looking for a job but wish to work.

**Figure 7: Employment and unemployment outflow rates to inactivity**



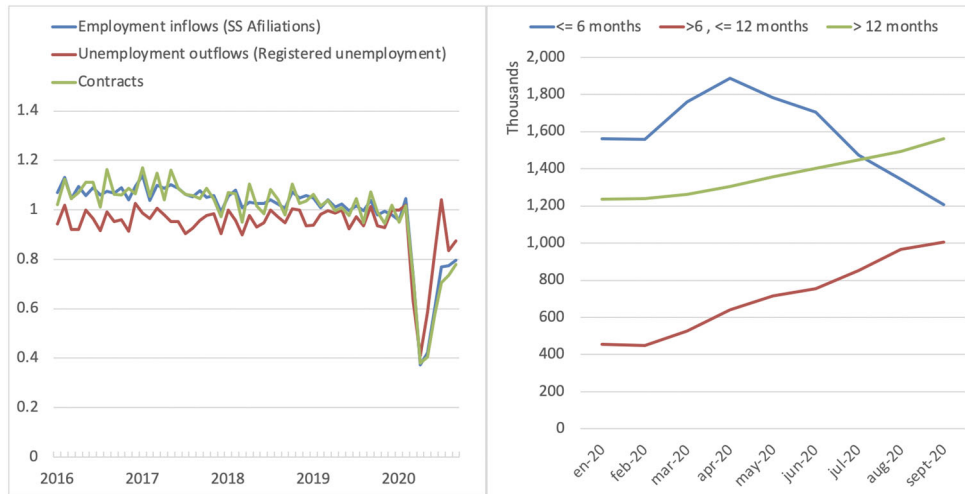
Source: EPA

### 3.4 The slowdown in hiring and the rise of long-term unemployment

The net job destruction rate during the pandemic has been primarily driven by the increasing employment outflows in the first weeks of the State of Alarm (March 14-June 21, 2020), and then by the hiring freeze which reduced employment inflows and unemployment exits. Using monthly data on affiliation to the social security registered unemployment, these flows are displayed in Figure 8. As can be inspected, both the number of contracts and these flows fell by 60% relative to those registered in 2019. Six months later, they have slightly recovered, reaching 80% of those registered before the crisis. Consequently, unemployment duration has progressively scaled up. In particular, from the moment the intense job- destruction process stopped, short-term

unemployment began to fall, while long-term unemployment increased. Using data from MCVL (2018), Felgueroso et al. (2020) show that, prior to 2020, about 1.7 million unemployed workers found a job during the equivalent first two months of the State of Alarm. Note that the second quarter is usually the quarter where UE flows are greater.

**Figure 8: Employment inflows, unemployment outflows, number of contracts in 2002Q2 (relative to 2019Q2) and unemployment duration (Jan-Sept 2020).**



Source: Seguridad Social and Public Employment Services (SEPE)

### 3.5. Outflows from the STW schemes

The use of employment protection schemes in Spain has been less intense than e.g. in France, due to the disproportionate layoffs of temporary workers. Prior to the pandemic, 60% of the temporary contracts registered in Spain were rehiring contracts, that is, temporary layoffs. Therefore, the mixed strategy followed in during the pandemic can be interpreted as a combination of the European STW schemes and the American temporary layoffs. One of the questions that will probably generate more research in the coming years is which of these two solutions has been more effective in recovering employment. That is, whether STW schemes, despite a priori providing a safer guarantee of job protection, can slow down the relocation process during the recovery compared to temporary layoffs. The fact that Spain has used a mixed solution makes it a good testing ground to assess this issue.

The data available for 2020Q3 allows us to address this question, albeit in a descriptive and therefore only intuitive way. Using EPA, Table 1 displays the quarterly transitions of workers covered by ERTes to alternative labour market states. About 59.0% and 66.0% of private sector employees covered by ERTE of suspension of employment in 2020Q1 and Q2, respectively, returned to full-time jobs in their previous firms, while less than 2% moved to another company. However, the largest transitions are to another type of

ERTE, implying a reduction in working hours of 15.3% and 11.8% in 2020Q2 and Q3. Finally, 16.9% and 15.2%, respectively, lost or quit their jobs, becoming unemployment or inactive.

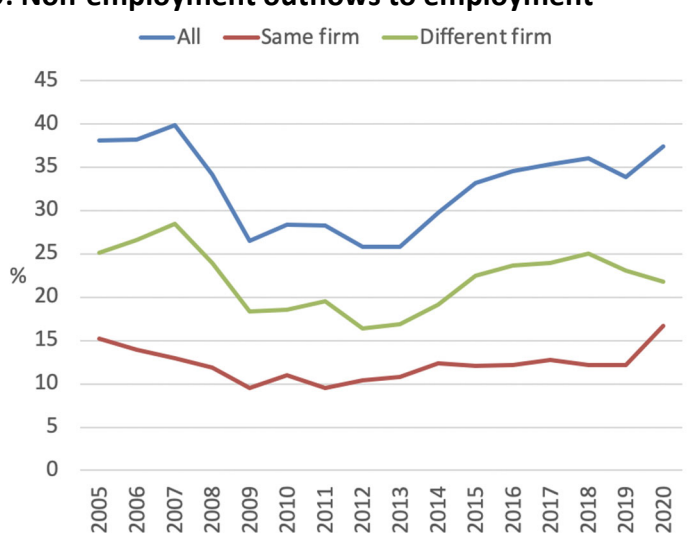
**Table 1: STW schemes outflows (Private sector employees)**

Transitions to	Transitions from			
	STW-suspended work		STW- reduced working hours	
	Q2	Q3	Q2	Q3
FEW (same firm)	58.7	66.4	68.9	80.8
FEW (different firm)	1.9	1.9	1.4	0.8
Unemployment	7.4	5.5	9.1	2.6
STW- suspended work	15.3	11.8	5.2	0.8
SRW: reduced working hours	7.2	4.6	9.2	13.0
Out of labour force (want to work)	3.2	3.3	2.2	0.9
Out of labour force (don't want to work)	6.3	6.4	3.9	1.1

Source: EPA and Seguridad Social registers.

Figure 9 in turn shows the UIE transitions among those employees who lost their jobs between 2020Q1 and Q2, depending on whether they were recalled to the same firm or not. As can be seen, the return of these workers to employment is momentarily much lower than the corresponding rates for workers under ERTE. However, to make a more accurate analysis it is necessary to control for other factors.

**Figure 9: Non-employment outflows to employment**



To do so, we estimate three multinomial logits modelling transitions from: (i) employment, (ii) ERTes, and (iii) unemployment or of those inactive willing and available to work, to the following different states: effective work, ERTE with contract suspension,

ERTE with reduction of working hours, unemployment or inactivity (distinguishing between those willing to work or not) between 2020Q1 and Q2 and, separately, between the corresponding first two quarters in 2016-2019. Then, we analyse transitions from private sector employees under ERTE with suspended contracts to the above-mentioned states between 200Q2 and Q3 (applying the same distinction as before to effective work). Finally, the third model is intended to estimate the determinants of the transitions from unemployment or inactivity (for those willing and available to work) to employment in the same firm or in a different one, between 200Q2 and Q3, as well as between these quarters prior to the crisis, 2016-2019. We report estimates of the relative risk ratios (RRR) for variables like gender, age, educational level and type of contract in the two first models, and for time elapsed since the last job in the third model.<sup>2</sup> In all specifications, the referent group is to remain in the initial state.

The results from comparing transitions by gender during the first wave of the Covid-19 crisis indicate no statistically significant gender gaps between remaining in an effective work state and transitioning to a situation of ERTE or unemployment; yet, there is a greater propensity of women to transit into inactivity. Moreover, the gender difference in this transition is lower than in these same quarters of previous years, since a substantial fraction of men also stopped their job search. Likewise, the transitions from ERTE in the following quarter (Q3) do not differ by gender though, before the pandemic, unemployed women were less likely to find jobs in a different company than the firm where they were working before losing their jobs.

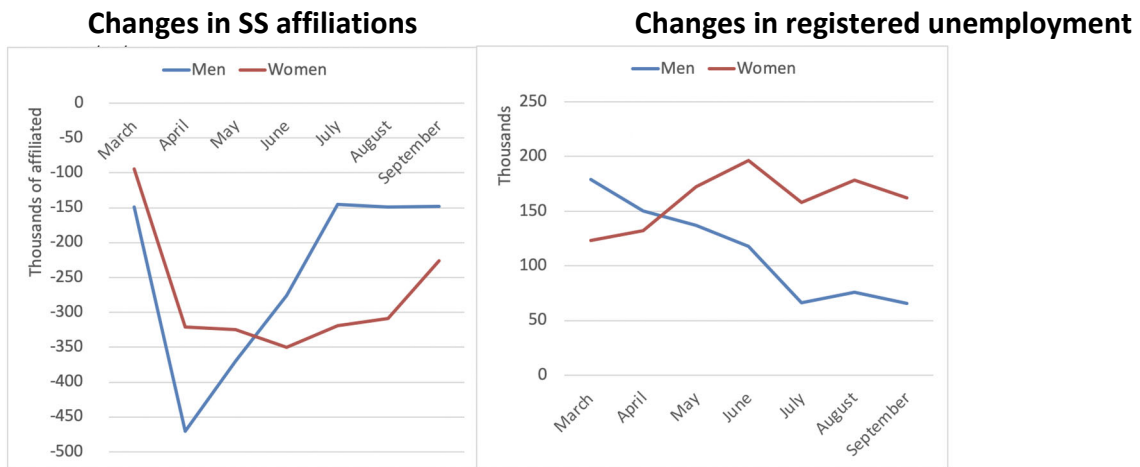
These findings are corroborated with data from Social Security affiliation and registered unemployment. As shown in Figure 10, men experienced a greater reduction in employment (increase in unemployment) than women during the first weeks of the State of Alarm; yet, in the following months, men's partial recovery of employment levels prior to the pandemic has also been faster. These patterns are similar to those observed in previous recessions.

---

<sup>2</sup> The RRR of a coefficient indicates how the risk of the outcome falling in the comparison group (relative to falling in the referent group) changes with the variable in question. An RRR > 1 (<1) points that the above risk increases (decreases) as the variable increases.



**Figure 10: Accumulated monthly changes in employment (Social Security) and unemployment (registered unemployment, SEPE) from February 2020, by gender**



Source: Social Security and SEPE

As regards age, young people turn out also to be the most affected in the first months of the pandemic, with greater transitions from employment to other states, including ERTE, than middle-aged and older adults. This difference, however, vanishes in the following quarter, although it remains regarding the exit of the ERTes to employment in different firms. In addition, as Felgueroso and de la Fuente (2020) have shown, targeted labour contracts for young people (training and internships) have been the most affected ones, reaching all-time lows.

As shown in Tables 2 to 4, employees with lower education attainment (less than compulsory secondary education) have exited less from employment towards ERTE with reduced working hours and more to unemployment. However, they are more likely to return to employment from the ERTE in different companies than those with middle educational levels. The latter, in turn, have a greater probability of transitioning from employment to inactivity (between Q1 and Q2, Table 2) and from ERTE to inactivity (between Q2 and Q3, Table 3), as well as a lower probability of returning to employment from non-employment (between Q2 and Q3, Table 4) than those with college.

**Table 2: Quarterly transitions from full effective work, 2020 Q1-Q2 (\*)**  
Risk relative ratios – multinomial logit model

	STW suspended work	STW reduced working hours	Unemployment	Inactivity, willing to work	Inactivity, doesn't want to work
<b>Gender</b>					
<b>Women/Men</b>					
2020	1.053	1.029	1.054	1.312***	1.385***
2016-2019	1.013	0.730	1.038	1.753***	1.392***
<b>Age</b>					
<b>16-29/30-44</b>					
2020	1.409***	1.196**	1.292***	1.036	1.801***
2016-2019	1.009	0.620	1.064	1.205*	2.326***
<b>45-64/30-44</b>					
2020	1.0681**	1.090*	1.012	1.043	1.224***
2016-2019	1.747**	1.133	1.030	1.353***	1.657***
<b>Educational attainment</b>					
<b>Low/Medium</b>					
2020	0.991	0.798***	1.245***	1.102	0.998
2016-2019	0.987	1.383	1.130***	1.564***	1.090*
<b>High/Medium</b>					
2020	0.799***	0.965	0.975	0.652***	0.605***
2016-2019	0.731	1.523*	0.918*	0.928	0.597***
<b>Type of contract</b>					
<b>Fixed-term/Permanent</b>					
2020	1.070	0.854*	3.683***	3.473***	2.496***
2016-2019	1.018	1.211	4.826***	5.459***	2.190***

(\*) Additional control variables: part-time work, job tenure, employment status, occupation (CNO11-1 digit), economic activity (CNAE09-1 digit), CCAA, year.

**Table 3: Quarterly transitions from suspended contract, private sector employees, 2020Q2-2020Q3**

Risk relative ratios – multinomial logit model

	Full effective work. Same firm	Full effective work. Dif. firm	STW reduced working hours	Unemploy- ment	Inactivity, want to work	Inactivity, doesn't want to work
<b>Gender</b>						
<b>Women/Men</b>	0.861	0.854	0.844	0.913	0.861	0.793
<b>Age</b>						
<b>16-29/30-44</b>	1.115	1.647*	0.899	1.127	1.146	1.231
<b>45-64/30-44</b>	0.872	0.792	1.038	0.794	1.060	1.447**
<b>Educational attainment level</b>						
<b>Low/Medium</b>	1.132	0.854	0.934	0.975	1.580**	1.275
<b>High/Medium</b>	0.865	0.857	0.968	0.950	0.476***	0.742
<b>Type of contract</b>						
<b>Fixed-term/Permanent</b>	1.272	2.946***	0.503*	3.729***	3.186***	2.047***

(\*) Additional control variables: part-time work, job tenure, occupation (CNO11-1 digit), economic activity (CNAE09-1 digit), CCAA.

**Table 4: Quarterly transitions from unemployment and inactivity (doesn't want to work), Q1-Q2 (\*)**

Risk relative ratios – multinomial logit model

	Employment Same firm	Employment Dif. firm
<b>Gender</b>		
<b>Women/Men</b>		
2020	1.078	0.767***
2016-2019	0.987	0.767***
<b>Age</b>		
<b>16-29/30-44</b>		
2020	0.936	1.148
2016-2019	0.921	1.247***
<b>45-64/30-44</b>		
2020	0.895	0.704***
2016-2019	0.850***	0.601***
<b>Educational attainment</b>		
<b>Low/Medium</b>		
2020	1.006	0.983
2016-2019	0.946	0.852***
<b>High/Medium</b>		
2020	1.250**	1.290***
2016-2019	1.154**	1.134***
<b>Previous job/No previous job</b>	4.015***	2.034***
<b>Time since last job</b>	4.015***	2.034***
	5.402***	1.407***
<b>&gt;= 4, &lt; 12 m./&lt; 4 m.</b>		
2020	2.292***	1.584***
2016-2019	1.400***	1.245***
<b>&gt;= 12 m. ./&lt; 4 m.</b>		
2020	0.258***	0.481***
2016-2019	0.264***	0.731***

(\*) Additional control variables: part-time work, job tenure, employment status in previous job, occupation in previous job (CNO11-1 digit), registration at public employment office, recipient of unemployment benefits, CCAA, year

With regard to type of contract, workers under TC exhibit lower propensity to go from employment to ERTes with reduced working hours than those under OEC, and a greater propensity to transit to non-employment during the State of Alarm. Likewise, between Q2 and Q3, they have had a greater probability of transitioning to employment in another company, unemployment and inactivity.

Finally, the long-term unemployed are less likely to return to employment during the crisis than in the same quarters of previous years. By contrast, those people who lost their job in the first months of the pandemic have a higher relative probability to return to their previous firm than those who became unemployed before the crisis.

In short, the previous transitions analysis (expanding the potential working states with ERTes and inactivity with the willingness and availability to work) shows that the impact that this crisis on the Spanish labor market follows a similar pattern similar to those in the previous downturns. The most vulnerable workers have been worst hit: young people, women, people with a lower educational level, and temporary workers. For the moment, the return of people in ERTE to employment seems to have been greater and faster than for those laid off at the beginning of the crisis.

#### **4. The labor market post-Covid19**

As time goes by, with the pandemic far from being fully controlled and lockdowns and other restrictions to economic activity emerging as recurrent response to potential outbreaks during the next few years, it is becoming more evident that the Covid-19 crisis could become a structural one. We are witnessing changes in working and consumption patterns and in business models that are likely to remain in place. Moreover, scarring effects of the crisis, through hysteresis, are also very likely. And all these changes and the hysteresis effects suggest an acceleration of structural mega-trends already in place before the crisis, namely job polarization, robotization and digitalization, platform jobs and the resulting rise in inequality.

As a result, the job reallocation induced by the new wave of technological changes will be intensified and extended by the economic consequences of the Covid-19 crisis. It is conceivable that, after the Great Moderation and the Great Depression, we are now entering “The Great Reallocation” era. It will be marked by radical changes in the composition of employment, consumption, and economic activity. In this context, their consequences for the performance of labor market and the implications for the design and implementation of social and employment policies would be increasingly relevant. Moreover, the required job reallocation provides an opportunity to also fight other risks (and crises) that seem likely into the future, such as the challenges associated to climate change that will have to be met by a transition to new environmentally-friendly sources of energy and production of goods and services. Under these premises, two main questions arise when anticipating the long-run effects of the Covid-19 crisis on the labor market. One has to do with the reasons why hysteresis effects ought to be larger (or smaller) than those observed in previous recessions. Another is the duration and costs associated to the job reallocation process that seems necessary. Finally, there is the endogenous response of labor market institutions in the aftermath of the Covid-19 crisis, which, among other things, will imply a large increase in wage and earnings inequality. Many of the social and employment measures implemented in response to

the crisis will stay and, together with the fight against increasing inequality, they may bring a significant institutional reconfiguration of labor markets across Europe. In particular, in those countries, like Spain, with higher inequality and more dysfunctional labor market institutions.

As for hysteresis effects, there are several reasons why they should be more relevant in the aftermath of the current crisis.<sup>3</sup> First, the number of jobs lost (or suspended through SWT schemes) has been far higher than in previous recessions (even than in the long 2008-2014 recession). Secondly, the job losses have been concentrated in the low-skill and labor-intensive segments of the labor market associated to personal services provided under “physical proximity” (hotels, restaurants, recreational activities, etc.). Thus, workers who in principle are “less re-employable” have been the most affected ones. And this happens when new jobs created by new technologies (robotics, digitalization, teleworking, AI) require skills that seem difficult to embed in those workers shed out of the personal service sectors. Thus, keeping the “matching capital” alive in these jobs does not look optimal. Moreover, the uncertainty about how these new jobs will be organized and how new business models will use them renders ALMP (training, counselling, intermediation services) of dubious effectiveness, at least in the short-run. This concern is especially relevant when the resources available for governments to expand ALMP have been much lessened by the needs of other policies aimed at sustaining rents. Finally, the financial position of firms has also become less resilient. Hence, they will be forced to reduce costs, to repay debts and credits obtained to preserve liquidity during the pandemics, and to restore balance sheets.

The confounding effects of the Covid-19 crisis and the arrival of new technologies will definitely impact on the job reallocation process that is underway. First, the confinements and other social distancing measures have implied a heavy investment in working under telepresence (the so-called “teleworking”) which will remain in place determining which jobs and workers will be recalled back once the pandemics is over. Second, automation and the implementation of AI algorithms provide firms with an additional margin of adjustment, namely, the substitution of jobs by machines that, unlike humans, are not affected by viruses.

This phenomenon can be illustrated by the greater impact that the pandemic is having on occupations that were already suffering from occupational polarization. Palomino, Rodríguez and Sebastian (2020) advanced that a rise in polarization and inequality could

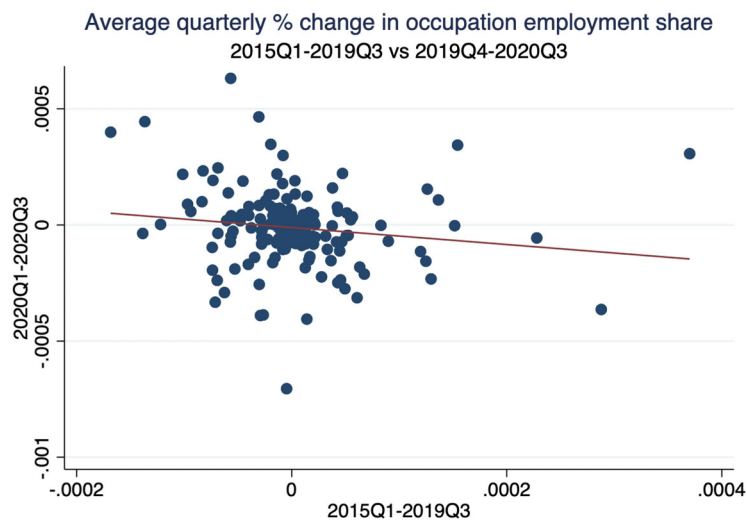
---

<sup>3</sup> For a recent survey on the theory, empirics, and policy implications of hysteresis and its consequences on short-run and long-run economic fluctuations, see Cerra, Fatás and Saxena (2020).

be expected during this crisis due to its occupational and sectoral impact. Figure 11 shows the evolution of employment across 3-digit NACE occupations since the beginning of the pandemic and during 2011-2019.

Figure 11 shows the changes in employment shares across 3-digit NACE occupations since the beginning of the pandemic (vertical axis) and during the 2015-2019 period (horizontal axis). As can be seen, though the relationship is not strong, those occupations which were more prevalent before the crisis, are the ones most affected by the pandemic and vice versa. Thus, there is some indication that *“the times they are-a changin’”*, in line with the job polarization evidence for Spain documented in Sebastian (2018).

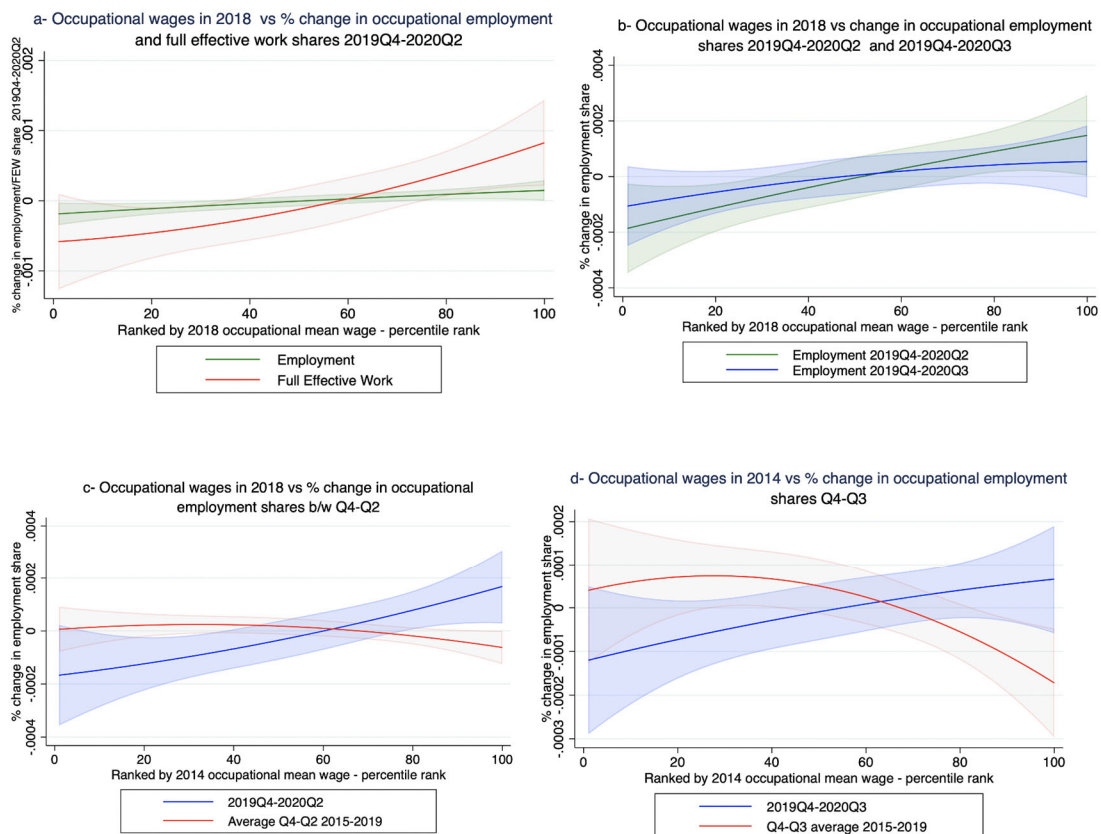
**Figure 11: Growth rates in occupational employment shares**



To dig a bit deeper into this issue, we combine employment shares and FEW data (where workers under ERTE are excluded) with occupations from 27 industries and 17 occupations (459 observations) and compare their changes over the State of Alarm period and the next quarter (2020Q3) with their ranks in terms of hourly wages (weighted by employment shares) in 2014 and 2018. High (low) wage percentiles correspond to skilled (less skilled) occupations. Panels a and b in Figure 12 display these rankings for 2018, while panels c and d do the same for 2014. As can be observed, there is a positive relationship between both variables during the State of Alarm, with employment falls in the lower-paid occupations most hardly hit during the first wave of the pandemic, especially as regards FEW (a and b). Between 2020Q3 and 2019Q4, where the last quarter meant a halt in the first wave of the pandemic, more than half of the jobs previously lost were recovered but job destruction was concentrated in better-paid occupations, not only those more amenable to automation but also relatively high-

skilled ones (c and d). Although this points to some job polarization and low-wage occupations have so far been the net losers, there are signs that Spanish employers are once more betting once more for low added-value industries with widespread use of TC. Moreover, note that if the employment pattern during the of the first two quarters of 2020 repeats itself during the current outbreaks, the ensuing process will be the opposite than the one under the upturn prior to the pandemic, when occupations whose average wage was below the 60th percentile experienced higher relative growth.

**Figure 12: Changes in occupational employment vs. wages**



Source: Encuesta de Estructura Salarial (2014 y 2018) and EPA (2015-2020)

Another dimension of the interaction between the Covid-19 crisis and technological changes arises from the observation that job losses have been disproportionately large among youth (see above). This has happened in times of profound demographic changes that are reducing working-age population both in absolute and relative (to total population) terms. A well-known feature of recessions is the “scarring effects” that they have on the long-term careers of young workers and new cohorts entering the labor force, especially in rigid labor markets.<sup>4</sup> Also, the interaction of the current population

<sup>4</sup> See Cockx and Ghirelli (2016).

ageing and technological changes (automation and AI) have long-term negative consequences for productivity growth, through the deceleration in innovation. This deceleration has two sources. One is the combination of the aggregate constraint on resources available for investment and the trade-off between investments in innovation and automation. Another is the direct implication of an older working-age population on the success rate of innovation.<sup>5</sup>

Finally, social and employment policies should be redesigned in the light of the depth, duration, and implications of the epidemic crisis. Important as well will be its long-run consequences that (in conjunction with technological and demographic changes) are likely to occur. In some EU countries, like Spain, the combination of “strict” EPL (relaxed by duality and the increasing prevalence of “atypical” contracts), sectoral collective bargaining with little scope for flexibility, and the provision of unemployment insurance, pensions, and other job-related benefits under contributory schemes, was already under heavy strains before the crisis. In the new context of heavy and costly reallocation, increasing inequalities, declining weight of labor in production (due to automation) with a falling labor share, and strong pressure of population ageing on public budgets, an institutional reconfiguration of the labor market and social and employment policies seems unavoidable. New business models and diversity in work organizations will increase the pressure to reform EPL and collective bargaining. Longer periods of unemployment, lower pension entitlements associated to job losses (especially among low-skilled workers) and population ageing will also increase the demand for alternative rent protection schemes of a universal scope (the so-called Universal Basic Income, a version of which, Ingreso Mínimo Vital, was approved last May) and a retreat of contributory benefits.

Finally, social and employment policies should be redesigned in the light of the depth and duration of the epidemic crisis. Important as well will be its long-run consequences that (in conjunction with technological and demographic changes) are likely to occur. In some EU countries, like Spain, the combination of “strict” EPL (relaxed by duality and the increasing prevalence of “atypical” contracts), sectoral collective bargaining with little scope for flexibility, and the provision of unemployment insurance, pensions, and other job-related benefits under contributory schemes, was already under heavy strains before the crisis. In the new context of heavy and costly reallocation-- increasing inequalities, declining weight of labor in production (due to automation) with a falling labor share, and strong pressure of population ageing on

---

<sup>5</sup> For a general equilibrium analysis of the interactions of demographic and technological changes, see Basso and Jimeno (2020). For empirical evidence on the implications of population ageing for innovation see Aksoy et al. (2019), and, Lazear et al. (2014).



public budgets--. an institutional reconfiguration of the labor market and social and employment policies seems unavoidable. New business models and diversity in work organizations will increase the pressure to reform EPL and collective bargaining. Long-term unemployment, lower pension entitlements associated to job losses (especially among low-skilled workers under TC) and population ageing will also increase the demand for alternative rent protection schemes of a universal scope (the so-called Universal Basic Income) and a retreat of contributory benefits.

These general guidelines should be tailored to address the peculiarities of the Spanish labour market when facing strong job reallocation, brought by the pandemic crisis, in a context of declining labour shares accelerated by technological changes. Traditional employment policies coupled with the dysfunctional institutions that underly the high structural unemployment and the increasing inequalities in Spain, seem ill-suited to smooth the employment adjustment process and to raise productivity growth. In this regard, the approach under the European Social Fund (and the alikes) and the EU Social Pillar (the mechanism for coordinating employment policies and fostering best-practices in the member countries), which will prevail for the implementation of the EU Next Generation Fund, is bound to replicate the drawbacks of employment policies in the past. In particular, it will not provide governments with the incentives to pursue further structural reforms aimed at accelerating productivity and laying down institutions prone to high employment and reducing inequalities.

In contrast, we envisage a more comprehensive approach aimed at protecting workers negatively affected by the crisis and the rise of automation, while in parallel providing incentives for human capital investments, optimal labour supply responses to shocks, and adequate use of the available public resources for employment promotion (both at the state and at the EU levels). This approach is built on the complementarities between labour market institutions and the effectiveness of employment and social policies. To exploit them, two main principles are in order: (i) the old and well-known idea of “protecting workers, not jobs”, as advocated, by Blanchard and Tirole (2008); and (ii) providing workers with “resources, not so much with ideal entitlements difficult to guarantee in practice”. The former is even more relevant under job reallocation. The latter is more convenient when work organizations, employment relationships and businesses models are transformed on the wave of radical technological advancements.

In the specific case of Spain, the first principle requires a radical reform of EPL to eradicate dualism, in line with the proposal of a unification of contracts (see Dolado et al., 2020) coupled with pre-funded dismissal costs, akin to the Austrian Fund (see Katterman et al., 2017). In fact, the constitution of worker individual accounts, where

resources from social and employment policies are accumulated under certain conditions for eligibility and disposal, should be paramount. Hence, we advocate employment policies geared towards a more intensive use of direct transfers to workers, with less regulations that are difficult to enforce and that distort both labour demand and supply.

## References

Aksoy, Y., H. Basso, R. Smith and T. Grasi (2020), Demographic structures and macroeconomic trends." *American Economic Journal-Macroeconomics*, 11, 193-222.

Autor, D. and D. Dorn (2013), The growth of low skill service jobs and the polarization of the U.S. labor market." *American Economic Review*, 103, 1553-1597.

Autor, D., D. Dorn, L. Katz, C. Patterson and J. Van Reenen (2020), " The fall of the labor share and the rise of superstar firms." *Quarterly Journal of Economics*, 135, 645-709.

Basso, H. and J.F. Jimeno (2020), "From secular stagnation to Robocalypse? Implications of demographic and technological changes." forthcoming *Journal of Monetary Economics*.

Bentolila, S., J.J. Dolado and J.F. Jimeno (2020), " Dual labour markets revisited." *Oxford Encyclopedia of Economics and Finance*, Feb issue.

Blanchard, O. and J. Tirole (2008), "Joint design of unemployment insurance and employment protection: A first pass." *Journal of the European Economic Association*, 6, 45-77.

Bonhomme, S. and L. Hospido (2017), "The Cycle of Earnings Inequality: Evidence from Spanish Social Security Data." *The Economic Journal*, 127, 1244–1278.

Cabrales, A., J.J. Dolado and R. Mora (2017), "Dual employment protection and (lack of) on-the-job training: PIAAC evidence for Spain and other European countries." *SERIEs Journal of the Spanish Economic Association*, 8, 345-37.

Calmfors, L. and J. Driffill (1998), "Bargaining structure, corporatism and macroeconomic performance." *Economic Policy*, 3, 14-61

Cerra, V., A. Fatás, A. and S. Saxena (2020), "Hysteresis and Business Cycles." IMF WP 20/73.

Cocks, B and C. Ghilleri (2016), "Scars of recessions in a rigid labor market." *Labour Economics*, 41, 162–176.

Dolado, J. J. (2017), "EU dual labour markets: Consequences and potential reforms". In *Economics without Borders. Economic Research for European Policy Challenges*, R. Blundell et al. (eds). Cambridge University Press.

Dolado, J.J., E. Lalé, and N. Siassi (2020), "From dual to unified employment protection: Transition and steady state." forthcoming *Quantitative Economics*.

Eichenbaum, M., S. Rebelo and M. Trabandt (2020), "The macroeconomics of epidemics." (mimeo)

Felgueroso, F, J.I. García-Pérez and S. Jiménez (2020), "Guía práctica para evaluar los efectos sobre el empleo de la crisis del COVID-19 y el Plan de Choque Económico." Fedea Economy Notes 2020-04, FEDEA.

Glover, A., J. Heathcote, D. Kruger, and J.V. Rios-Rull (2020), "Health versus wealth: On the distributional effects of controlling a pandemic." (mimeo)

Ketterman, A., F. Kramarz, and J. Zweimüller (2017), "Job mobility and creative destruction: Flexicurity in the land of Schumpeter," CEPR DP 12112

Lazear, E. P. (1990), Job security provisions and employment." *Quarterly Journal of Economics*, 105:699–726.

Lazear, E., J. Liang, and H. Wang (2014), "Demographics and Entrepreneurship", NBER WP 29506.

Kaplan, G., B. Moll and G.L. Violante (2020), "The Great Lockdown and the Big Stimulus: Tracing the Pandemic Possibility Frontier for the U.S." (mimeo).

Moral-Benito, E., M. García-Santana, J. Pijoan-Mas, and R. Ramos (2019), "Growing like Spain: 1995-2007." forthcoming *International Economic Review*.

Müller, T. and T. Schulten (2020), "Ensuring fair short-time work - a European overview." ETUI Policy Brief, European Economic, Employment and Social Policy N°7/2020.

Palomino, J.C., J.G. Rodríguez and R. Sebastian (2020), "Wage inequality and poverty effects of lockdown and social distancing in Europe." INET Oxford Working Paper No. 2020-13.

Sebastián, R. (2018), "Explaining job polarization in Spain from a task perspective." *SERIES Journal of the Spanish Economic Association*, 9, 215-248.