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THE FINANCIAL POSITION OF THE WORKERS MOST  
AFFECTED BY THE PANDEMIC: AN ANALYSIS  
DRAWING ON THE SPANISH SURVEY OF HOUSEHOLD  
FINANCES

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## ABSTRACT

In the European economies, employment in the retail sector, in accommodation and food services and in the arts and recreation activities has been hit especially hard by the pandemic, so it is important to ascertain the financial resources that the individuals working in these sectors have available to withstand a possible fall in their income. This article draws on the Banco de España's Survey of Household Finances (EFF, by its Spanish abbreviation) to characterise the financial position of the workers most affected by the present crisis. In 2017, these sectors employed approximately half of all women and the under-35s, two population groups with relatively lower labour income levels. In many cases, these workers lived in households that included higher income earners, which may partially mitigate the incidence of possible job losses. Even so, in 2017, 28% of those employed in the sectors affected lived in households whose financial assets amounted to less than one month's income, and one in 12 lived in households for which debt repayments amounted to more than 40% of their pre-tax income. Among the workers in the sectors most affected by the pandemic, the financial position of those who were less able to work from home and those employed in the accommodation and food services and arts and recreation sectors was relatively more vulnerable.

**Keywords:** COVID-19, inequality, individual and household income, teleworking, household finance.

**JEL classification:** E21, G51, J21.

## THE FINANCIAL POSITION OF THE WORKERS MOST AFFECTED BY THE PANDEMIC: AN ANALYSIS DRAWING ON THE SPANISH SURVEY OF HOUSEHOLD FINANCES

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### Introduction

The pandemic is having an especially harsh impact on those industries where consumption requires greater social proximity. Thus, demand for services in sectors such as restaurants, hotels, bricks and mortar retail and the arts – the “social” industries – has declined. In turn, job losses are proving especially severe in restaurants and bars, in retail and in the arts, recreation and entertainment sectors.<sup>1</sup> These patterns are different from those observed in previous downturns, as for instance in the 2008 recession when the sectors most affected were construction and durable goods manufacturing.

The financial position of the households affected is a key channel through which falls in employment can contribute to the propagation of recession. Insofar as the individuals affected have lower levels of savings and higher spending commitments than the rest of the population, a decline in their income will be reflected in a much sharper reduction in their spending. Thus, when households affected by a negative income shock have lower savings than other households, the total spending contraction is more acute than if savings were distributed evenly.<sup>2</sup>

The EFF, which is conducted regularly by the Banco de España, has disaggregated information on the assets, debts and employment status of members of Spanish households before the pandemic. This is a representative sample of the Spanish population and thus makes it possible to characterise both the income of the workers employed in these industries and the financial position of their households. The article distinguishes between two types of industries: those most affected by the pandemic, i.e. the social industries, which include retail, accommodation and food services, education and personal services; and those that are in principle least affected, i.e. the regular industries, which include agriculture, manufacturing, construction, business services and financial intermediation, and public

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1 This article adopts the distinction between regular and social industries presented in Kaplan et al. (2020). The sharp decline in employment in accommodation and food services, retail, and arts and recreation activities during the current episode is shown in Banco de España (2020a), in Adams-Prassl et al. (2020) for the United States, the United Kingdom and Germany, and in Mongey et al. (2020) for the United States. The sharp drop in spending on these sectors' products in Spain is documented in Carvalho et al. (2020).

2 See Kaplan et al. (2020).

administration. Health services and transportation and storage are considered separately.<sup>3</sup> Lastly, and as households may have members working in different industries, the analysis is conducted on a sample of individuals using 2017 data (or 2014 data when the last wave is not available).<sup>4</sup> The article concludes with a comparison of the position of the workers most affected by the 2008 crisis, for which purpose the data from the EFF 2008 are used.

## Analysis of individual characteristics

In 2017, approximately half of all women in employment (51%) worked in social industries, compared with 33% who worked in regular industries (see Chart 1.1). By contrast, less than one in three men (30%) worked in the social industries. Classifying workers by age, the social industries employed 48% of young people and the regular industries 40% (see Chart 1.2).<sup>5</sup> No major differences were observed between the regular and the social industries in terms of job security, measured by the percentage of permanent and temporary contracts and of self-employed workers.

The greater presence of young and female workers in the social industries suggests that the workers most affected by the pandemic will be those with lower labour income, as wages increase with age and as, on average, women earn lower wages than men. To analyse the labour income distribution of workers in the social industries, the EFF 2014 wave is used, given that the individual income level data from the EFF 2017 are still preliminary. In 2014, approximately one in three workers in the social industries (36%) received labour income that placed them in the lower quartile of the distribution (see Chart 1.3). By contrast, also in 2014, 17% of those employed in the regular industries received labour income that placed them in the lower quartile of the distribution, while in transportation and health services, only one in seven workers (14%) was in the lower quartile. Accordingly, in 2014 there were more low labour income earners (including self-employed workers) in the social industries than in the other sectors.

Importantly, these characteristics have remained steady in the three waves of the EFF – 2008, 2014 and 2017 – that cover almost a decade. In all these waves it is

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3 The EFF data draw no distinction between passenger transport, which is considered a social industry, and goods transport, which is considered an essential industry. For this reason, the entire sector is analysed separately together with health services.

4 As in all the survey waves, not all the interviewees in the EFF 2017 replied to all the questions. When this study was prepared, none of the missing data on the industry or occupation of each household member or on their labour income had been imputed. Accordingly, the individual labour income distribution is calculated using the EFF 2014 data. However, as the rate of no response to the questions on the industry or occupation of each household member was very low (0.15% and 0.12%, respectively), the EFF 2017 data are used for these variables. For all the other variables used, the imputation process is complete and the data used are, therefore, the EFF 2017 data.

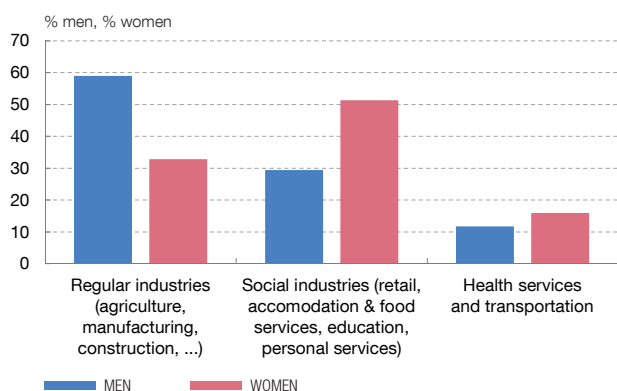
5 The evidence from the United Kingdom is similar (see Joyce and Xu (2020)), although given the two countries' different demographic structure, the implications for household income are not the same for Spain.

Chart 1

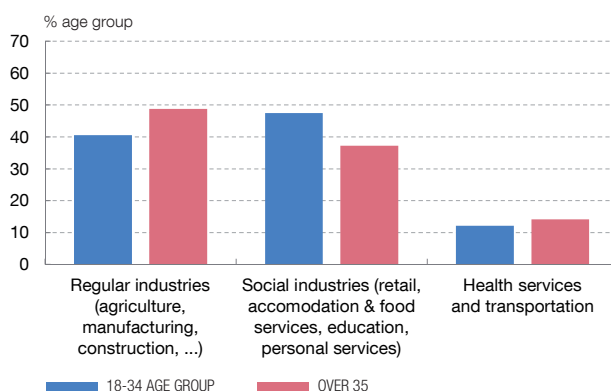
**LABOUR INCOME AND FINANCIAL POSITION OF WORKERS MOST AFFECTED BY COVID-19**

The industries hardest hit by the pandemic employed a proportionally higher number of young and female workers than the other sectors, and a higher percentage of low-wage workers. The lower wages of workers in the social industries would be partially offset by the fact that these workers lived with other higher income earners. Compared with workers in the regular industries, they also lived in households with fewer financial assets and higher debt repayment commitments.

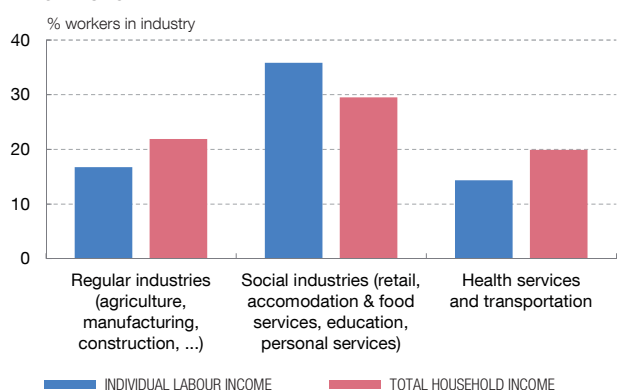
1 PERCENTAGE OF WORKERS IN DIFFERENT INDUSTRIES, BY SEX



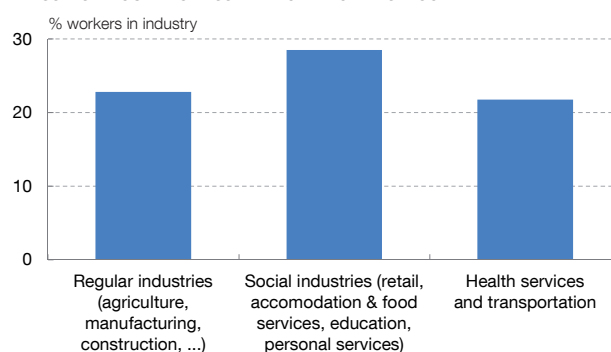
2 PERCENTAGE OF WORKERS IN DIFFERENT INDUSTRIES, BY AGE



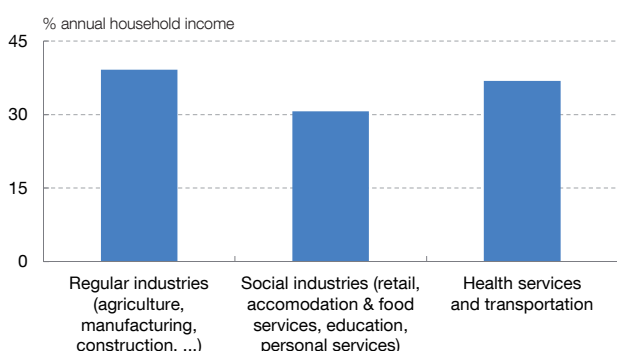
3 PERCENTAGE OF WORKERS IN LOWER QUARTILE OF INCOME DISTRIBUTION



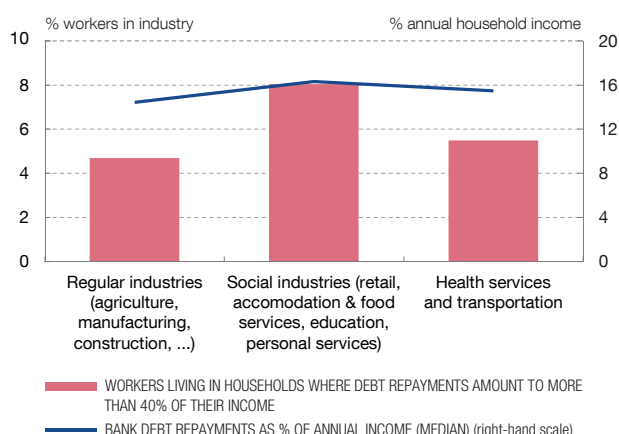
4 PERCENTAGE OF WORKERS LIVING IN HOUSEHOLDS WHOSE FINANCIAL ASSETS AMOUNT TO LESS THAN ONE MONTH'S INCOME



5 FINANCIAL ASSETS AS % OF ANNUAL INCOME (MEDIAN)



6 DEBT REPAYMENTS AS % OF HOUSEHOLD INCOME OF WORKERS IN DIFFERENT INDUSTRIES



SOURCE: Banco de España (EFF 2014 and 2017).



Table 1

**CHARACTERISTICS OF WORKERS IN DIFFERENT INDUSTRIES**

The social industries, which are those that have felt the brunt of the social distancing measures, employed more than 50% of all women and approximately half of the under-35s in the period 2008 to 2017. Workers in these industries are lower labour income earners than those in other industries, although they are not always the main breadwinners.

%	Regular industries (a)			Social industries (b)			Health services and transportation		
	2008	2014	2017	2008	2014	2017	2008	2014	2017
Women employed in the industry	30	34	33	59	52	51	12	15	16
Under-35s employed in the industry	43	38	40	46	50	47	10	12	12
Workers with wages in lower quartile	16	17	(c)	32	36	(c)	13	14	(c)
Workers whose income is more than 50% of household income	40	46	(c)	31	34	(c)	35	44	(c)

**SOURCE:** Banco de España (EFF 2008, 2014 and 2017).

**a** Agriculture, mining, manufacturing, water and gas utilities, construction, financial intermediation and business services, public administration.

**b** Retail, accommodation and food services, education, and personal services.

**c** Labour income data for all household members is not available in the EFF 2017.

observed that the social industries employed half of all women and almost half of all under-35s (see Table 1). Likewise, in 2008, one in three persons employed in the social industries received labour income that placed them in the lower quartile of the distribution.

## Analysis of household characteristics

The relatively high percentage of women and under-35s who work in the social industries, which is similar to the figures documented for the United Kingdom or the United States,<sup>6</sup> suggests that it is important to analyse the characteristics of the households in which these workers live. In 2017, 59% of those employed in the regular industries were men. For those women with spouses employed in the regular industries, which have been hit less hard by the pandemic, their spouses' income may help sustain household spending in the face of job losses in the social industries.<sup>7</sup> In addition, according to the 2017 Continuous Household Survey (ECH, by its Spanish abbreviation), approximately half of young people aged between 25 and 29 lived with their parents, as did a quarter of those aged between 30 and 34. In consequence, the decline in wage income associated with job losses may be mitigated if households have other income sources, such as retirement pensions.

<sup>6</sup> See Joyce and Xu (2020) and Mongey et al. (2020).

<sup>7</sup> Lekfuangfu et al. (2020) maintain that spouses tend to work in different occupations, thus generating a certain degree of assurance for the household, as shocks that affect one member of the household may possibly not affect another. Hupkau (2020) considers the case of Spain.

On the data from the EFF 2014, which is the last survey wave for which the income of each household member is available, it is observed that while the wages of 36% of workers in the social industries were in the bottom wage income quartile, approximately 29% lived in a household in the bottom household income quartile (see Chart 1.3). This difference between individuals' relative position in the income distribution, according to whether individual or total household income is considered, suggests that other household members' income may partially offset the impact of job losses in the social industries.<sup>8</sup> Indeed, in 2014, 34% of those employed in the social industries earned half or more of their total household income, whereas in the case of those employed in the regular industries, this percentage was 46% (see Table 1). The lower contribution to household income made by those employed in the social industries is also observed in 2008, and appears to be a stable characteristic of these sectors.

In terms of the financial position of those employed in the sectors most affected by the pandemic, a measure of the financial assets they hold may be obtained by comparing a household's financial savings (current accounts, investment funds, shares, pension funds) with its income. A household with financial savings that amount to less than a month's income would have limited resources to withstand a sudden fall in its income. In 2017, 28% of those employed in the social industries lived in households whose financial assets amounted to less than one month's income (see Chart 1.4), and half in households whose financial assets amounted to less than one-third of their annual income.<sup>9</sup> Also in 2017, in the regular industries 23% of workers lived in households whose financial assets amounted to less than one month's income, and half in households whose financial assets amounted to less than 39% of their annual income (see Charts 1.4 and 1.5).

Regarding households' debt, 71% of those employed in the social industries lived in households with debt in 2017. This figure is similar to that observed for those employed in the regular industries (see Table 2). Of this percentage, half of workers in the social industries lived in households whose debt repayments amounted to more than 16% of their annual pre-tax income in 2017 (see Chart 1.5). If all those employed are considered, that is, including those living in households without debts, in 2017 one in 12 of all workers in the social industries (8%) lived in households where debt repayments amounted to more than 40% of their pre-tax income. In the case of workers in the regular industries, this percentage was around 5% (see Chart 1.6).

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8 In 2017, 62.2% of those employed in the social industries lived in households where all working members were employed in the same industry (some 3,300,000 households, 17.8% of the total). In 2014, the number of households where all working members were employed in the social industries was similar (3,388,000). For half of these households, labour income from the social industries accounted for at least 75% of their monthly income.

9 Mongey et al. (2020) and Kaplan et al. (2020) consider that US households whose members have jobs that have less teleworking potential and involve less social distancing – those most affected by job losses in the current pandemic – have lower savings than other households. The role of teleworking is examined in a separate section below.

Table 2

**PERCENTAGE OF WORKERS IN DIFFERENT INDUSTRIES, BY HOUSEHOLD FINANCIAL POSITION**

Workers in the social industries in 2017 had fewer financial assets and higher debt repayment commitments than those in other industries. Compared with workers in the regular industries – which were those most affected by the financial crisis – in 2008, a lower percentage lived in households where debt repayments amounted to more than 40% of their income.

%	Regular industries (a)			Social industries (b)			Health services and transportation		
	2008	2014	2017	2008	2014	2017	2008	2014	2017
Household income in lower quartile of distribution	24	22	22	27	29	30	17	20	19
Owner-occupier household	85	83	79	71	79	72	81	81	81
Financial assets of less than one month's income	26	22	23	33	33	28	30	24	21
Households with bank debts	66	66	71	66	67	70	71	72	75
Bank debt repayments over 40% of income	10	5	5	12	9	8	10	8	6

**SOURCE:** Banco de España (EFF 2008, 2014 and 2017).

**a** Agriculture, mining, manufacturing, water and gas utilities, construction, financial intermediation and business services, public administration.

**b** Retail, accommodation and food services, education, and personal services.

To sum up, the industries that have borne the brunt of the pandemic employed a higher proportion of young and female workers than the other sectors, and also a higher proportion of low-wage workers. These lower wages would be partially offset by the fact that those employed in the sectors most affected by the pandemic lived with other higher income earners. Regarding their financial position, 28% of workers in the social industries lived, in 2017, in households whose financial assets amounted to less than one month's income, and around 8% had debts whose repayments amounted to more than 40% of gross household income. In consequence, the labour income and financial position of households of workers in the social industries was more fragile in 2017 than that of households whose members were employed in the regular industries.

## Heterogeneity across the social industries

The social industries encompass very different sectors. First, the retail, accommodation and food services, and arts and recreation sectors employ, on average, workers who command lower wages than, for example, those employed in education. In addition, these are the sectors where job losses have been most pronounced. Second, the possibility of working from home has become a key factor during the pandemic and this also varies across these sectors. These two issues are analysed separately below.

### Teleworking

In a lockdown situation such as that arising as a result of the pandemic, the possibility of working from home mitigates the intensity of the downturn. Much of the literature



on this crisis has quantified the possibility of teleworking, by analysing occupations by tasks performed.<sup>10</sup>

The social industries also include professions that may be identified as suitable for teleworking, for example, certain management or teaching jobs, whereas this may be more difficult in the case of certain recreational activities.

Taking the information available in the 2017 wave of the EFF, the occupations that are most suitable for teleworking may be identified. In this article, occupations are classified (to 2 digits) using an index devised in the literature that reflects their suitability for teleworking. The jobs of workers such as waiters, shop assistants or manufacturing supervisors obtain a low score, whereas jobs, for example, in the teaching profession, information sciences or management obtain a high score, indicating that they are more suitable for teleworking. The jobs that appear in the top half of the index distribution are considered to be those most suitable.<sup>11</sup> Note that this classification is based on potential, rather than actual, teleworking. In accordance with this definition, 43% of those employed in the social industries work in jobs that appear in the top half of the distribution according to their suitability for teleworking, while 50% of those employed in the regular industries work in jobs with high teleworking potential.

When a distinction is drawn between regular and social industries according to whether or not teleworking is possible, greater financial vulnerability is identified among those persons in jobs that are less suitable for teleworking. Thus, in 2017, 37% of workers in the social industries in jobs with less teleworking potential lived in households whose financial assets amounted to less than one month's income (see Chart 2.1), whilst for those employed in the social industries overall, this percentage was 28% (see Chart 1.4 compared with Chart 2.1). Also, 9.1% of workers in the social industries in jobs with limited teleworking potential lived in households whose debt repayments in 2017 amounted to more than 40% of their annual gross income, whereas for workers in the social industries overall, this proportion was slightly lower (8%) (see Chart 2.2).

Lastly, regarding the possibility of cutting spending, workers in the social industries with limited teleworking potential lived in households whose essential spending, i.e. on food and housing,<sup>12</sup> accounted in median terms for more than one-third of their pre-tax income. For this group of workers, this essential spending made up a higher

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10 See Kaplan et al. (2020). A very large body of literature on teleworking possibilities has arisen from the pandemic. See Dingel and Neiman (2020) for the United States and Anghel et al. (2020) for Spain.

11 Mongey et al. (2020) rank occupations from lower to higher teleworking potential, using the tasks included in the O\*NET database. The activities most suitable for teleworking, once weighted by employment, are those in the top half of the distribution.

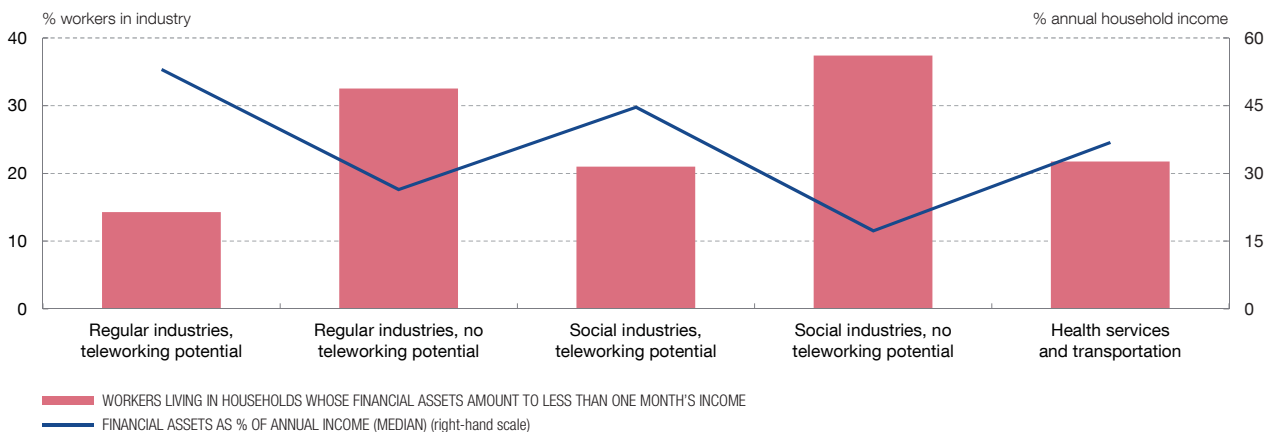
12 Spending on housing is defined as mortgage payments for owner-occupiers and rental payments for tenants.

Chart 2

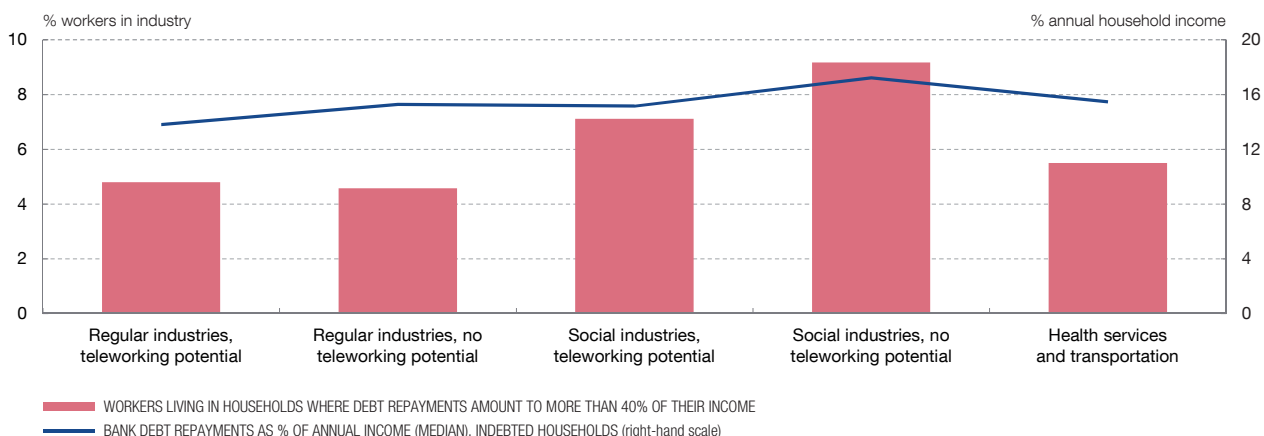
**WORKERS' FINANCIAL POSITION AND EXPENDITURE, ACCORDING TO THEIR TELEWORKING POTENTIAL**

When a distinction is drawn between regular and social industries according to whether or not teleworking is possible, greater financial vulnerability is identified among those persons in jobs that are less suitable for teleworking. Compared with the other workers in the social industries, these workers live in households with lower levels of financial assets and higher debt repayment commitments and where essential spending accounts for a higher percentage of their income.

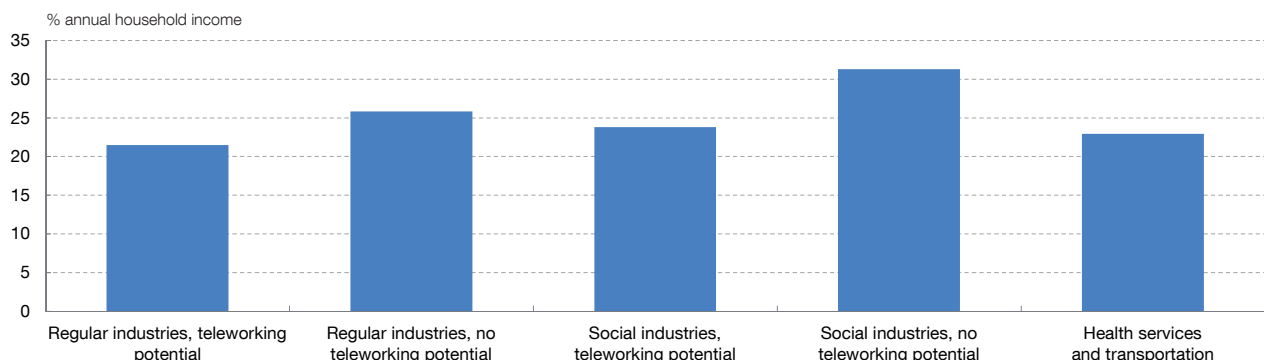
1 FINANCIAL ASSETS OF HOUSEHOLDS OF WORKERS IN DIFFERENT INDUSTRIES AND JOBS



2 DEBT REPAYMENTS AS % OF HOUSEHOLD INCOME OF WORKERS IN DIFFERENT INDUSTRIES AND JOBS



3 EXPENDITURE ON FOOD AND HOUSING AS % OF INCOME (MEDIAN)



SOURCE: Banco de España (EFF 2017).



proportion of their pre-tax income than it did for the other groups. This limits their ability to build up their savings in the short term (see Chart 2.3).<sup>13</sup>

## Sectors

The financial position of workers in the social industries varies across sectors, which may be grouped under four main headings: retail, accommodation and food services, education, and personal services. As Chart 3.1 shows, the financial resources of these workers' households varied significantly by sector in 2017. Thus, among workers in the education sector, only one in seven (14%) lived in households whose financial assets amounted to less than one month's income. Yet this figure was 20 percentage points (pp) higher among workers in accommodation and food services (35%) and personal services (36%). In addition, marked differences were also observed in the regular industries: at the end of 2017, 35% of construction workers lived in households whose financial assets amounted to less than one month's income, whereas in all the other sectors the proportion was 24% or less.

In the case of household's liabilities, workers in accommodation and food services and retail lived in households with high debt repayment levels (see Chart 3.2). One in eight of accommodation and food services workers (12%) and one in ten of those employed in retail (10%) lived in households whose debt repayments accounted for more than 40% of their income. By comparison, of those employed in all other industries, both regular and social, only 6% lived in households whose debt repayments accounted for such a substantial part of their income.

In short, in 2017, within the social industries, the financial position of persons employed in accommodation and food services, retail and other personal services was more fragile than that of those in education. Around one in three of those employed in accommodation and food and personal services lived in households whose financial assets amounted to less than one month's income. In terms of liabilities, approximately one in ten of those employed in accommodation and food services and retail lived in households whose debt repayments amounted to more than 40% of their pre-tax income.

## Comparison between the financial position of those affected by the 2008 recession and those affected by the current crisis

The sectors affected by the 2008 recession were different from those that have been most affected by the present crisis. For example, between January 2009 and January

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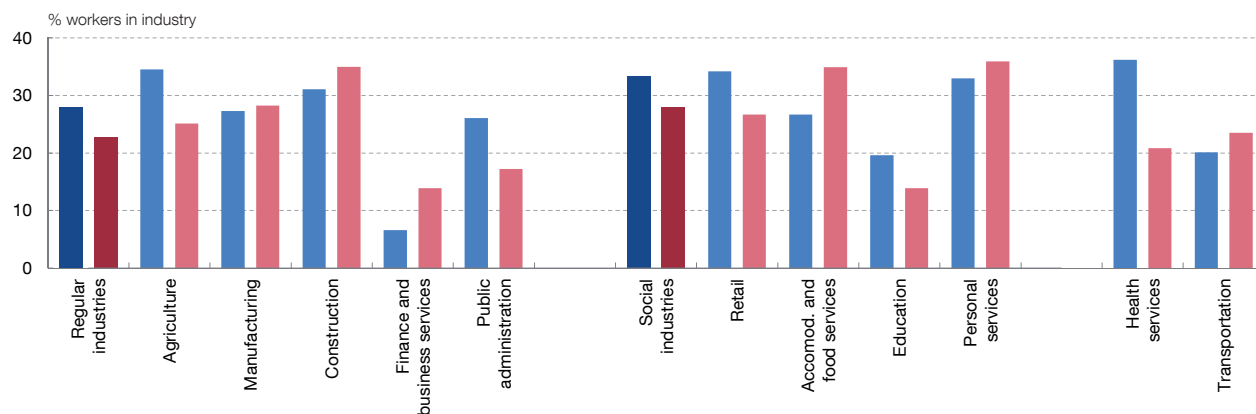
<sup>13</sup> Joyce and Xu (2020) document that, in the United Kingdom, for workers most affected by social distancing, spending on food and housing accounts for around 40% of their total expenditure.

Chart 3

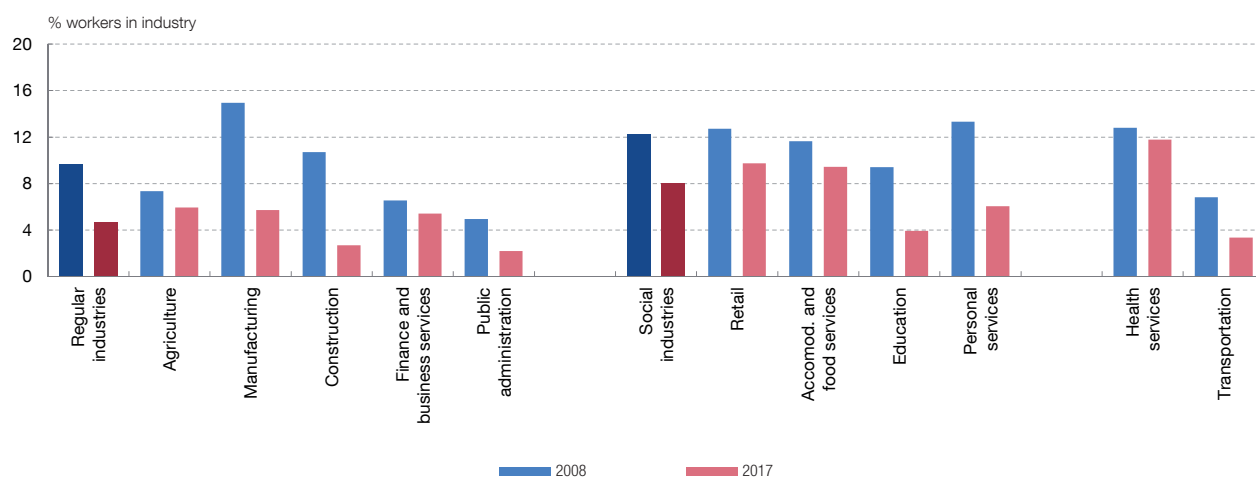
**FINANCIAL POSITION OF WORKERS MOST AFFECTED BY THE 2008 RECESSION AND THE PRESENT DOWNTURN**

The workers hardest hit by the 2008 financial crisis worked in regular industries, such as manufacturing or construction. Those hardest hit by the current downturn live in households that have similar levels of financial assets to the workers most affected by the 2008 crisis. However, as a result of deleveraging and lower interest rates, a smaller proportion have bank debt repayments that account for such a substantial part of their income.

1 % OF WORKERS LIVING IN HOUSEHOLDS WHOSE FINANCIAL ASSETS AMOUNT TO LESS THAN ONE MONTH'S INCOME



2 % OF WORKERS LIVING IN HOUSEHOLDS WHERE DEBT REPAYMENTS AMOUNT TO MORE THAN 40% OF THEIR INCOME



SOURCE: Banco de España (EFF 2008 and 2017).



2010, construction and manufacturing (both regular industries) recorded job losses of more than 8%.<sup>14</sup> By contrast, over the same period, job losses in accommodation and food services and retail (both social industries) were less than 4%.

Accordingly, it is interesting to compare the financial position of those employed in the regular industries in 2008 with that of the workers in the social industries today.

<sup>14</sup> Social Security registration data: [http://www.seg-social.es/wps/portal/wss/internet/Estadisticas\\_Presupuestos\\_Estudios/Estadisticas/EST8/EST167](http://www.seg-social.es/wps/portal/wss/internet/Estadisticas_Presupuestos_Estudios/Estadisticas/EST8/EST167).

Regarding the proportion of household income contributed by the workers affected, the comparison between the EFF 2008 and the EFF 2014 shows that 40% of those employed in the regular industries contributed at least 50% of household income in 2008. By contrast, in 2014, only 34% of those employed in the social industries contributed at least 50% of household income (see Table 1). In consequence, there may be greater income diversification in households with members working in the social industries; or in other words, other household members may be contributing income from other sources that offset the negative impact of job losses, although this effect may be limited.<sup>15</sup>

Next, households' financial assets and debts between the EFF 2008 and the EFF 2017 are compared. Starting with households' financial assets, the percentage of workers employed in the sectors most affected by the pandemic living in households with a low level of financial assets was similar in 2017 to that of workers most affected by the recession living in households with a low level of financial assets in 2008. In both periods, around one in three of those employed in the sectors most affected (construction and manufacturing in 2008, retail and accommodation and food services in 2017) lived in households whose financial assets amounted to less than one month's income (see Chart 3.1). In turn, in the case of households' liabilities, on account of the overall deleveraging by Spanish households observed since 2009 and of lower interest rates, the situation in 2017 was somewhat more favourable.<sup>16</sup> In 2008, 11% of persons employed in the regular industries lived in households where debt repayments amounted to at least 40% of their income, and 15% in the case of those employed in manufacturing (see Chart 3.2). By contrast, in 2017, 8% of workers in the social industries lived in households with high debt repayment commitments (3 pp less than the 11% observed in the regular industries in 2008). Even among those employed in accommodation and food services, which is the sector with the highest proportion of indebted households, 12% lived in households where debt repayments amounted to more than 40% of their income, which is 3 pp less than the 15% observed among households with members employed in manufacturing in 2008, and similar to the 11% of households with members employed in the construction sector.

In short, compared with the workers most affected by the 2008 recession, the probability of workers employed in the social industries in 2017 being the main

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15 In 2008, two-thirds of those employed in the regular industries (61.2%) lived in households where all employed household members worked in those industries. The percentage is very similar to that observed in the social industries in 2017 (62.2%). In 2008, all employed household members of 3,615,000 households worked in the regular industries, 21% of the total. This is approximately 3 pp higher than the 2017 figure, when all employed household members of 17.8% of households worked in the social industries. In addition, income source diversification among the households potentially most affected by the social distancing measures was slightly higher than that observed among the households most affected by the 2008 recession. For half the households whose employed members worked in the social industries, labour income from those industries accounted for at least 74% of their total income in 2014. By contrast, for half the households whose employed members worked in the regular industries in 2008, income from those industries amounted to 79% of their income.

16 See Chart 4.9 in Banco de España (2020b).

breadwinners was 6 pp lower, and the probability of their living in households where debt repayments amounted to more than 40% of their income was 3 pp lower, while a similar percentage lived in households with limited financial assets. This level of income diversification among the households most exposed to the current downturn, which is slightly higher than that observed in 2008, and the lower proportion of income needed to repay debts, suggest that these households will be less financially vulnerable than those that were most affected by the 2008 financial crisis.

22.7.2020

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