

WAGE AND TOTAL INCOME INEQUALITY IN THE ECONOMIC RECOVERY (2014-2017)

This box analyses changes in the inequality of households' wage and total income in Spain during the period 2014-2017.¹ Drawing on data from the Spanish Labour Force Survey (LFS), the wage income inequality of full-time workers (which is estimated to be closely related to the performance of hourly earnings)² remained relatively stable in the period under review (see the left-hand panel of Table 1).³ For instance, the value of the P90/P10 ratio⁴ was the same in 2017 (3.4 times) as it was in 2014, which is only 0.1 pp higher than in 2008. This stability was observed across all the wage income distribution.

When analysing the monthly wages of all workers, including part-time workers who display greater procyclicality in terms of hours and days worked, it can be seen that the inequality indicators declined significantly from 2014 to 2017 (the P90/P10 ratio fell from 5.12 to 4.7 during those years, see the right-hand panel of Table 1). These developments mean that almost half of the increase in wage income inequality according to this ratio, which was observed in the recession, was reversed. The reduction in inequality was sharper at the lower end of the wage distribution, which is the segment that was also affected most during the crisis. The results are qualitatively similar if the Continuous Sample of Working Histories is used (MCVL by its Spanish abbreviation) (see Chart 1).

The developments observed in 2017 were set in a context where the quality of new jobs showed similar patterns to those seen in the period 2014-2016. Thus, a high proportion of employment inflows continued to be temporary and brief, and to have a greater impact on part-time employment than in the pre-crisis period (see Charts 2 and 3). In any event, certain aspects of job creation have improved somewhat during 2017. In particular, the decline

in the impact of part-time employment observed since 2014 has persisted, the conversion of temporary to permanent contracts has recovered and the temporary employment ratio in the private sector has decreased slightly, although historically this ratio has tended to rise during upturns. These factors mainly benefit lower-paid workers and, consequently, should contribute to improving inequality indicators at the lower end of the wage distribution. Against this, the average duration of temporary contracts continues to decline, essentially as a result of the higher proportion of those of a shorter duration (see Chart 4). Although sufficiently detailed information on wages is not available for 2018, the quality of new jobs continued to improve in terms of fewer short-term jobs and more permanent ones and, consequently, wage inequality is expected to have decreased even more last year. The duration of new temporary contracts has continued to decrease.

According to the 2017 Living Conditions Survey (LCS), inequality in terms of households' total per capita gross income (labour and non-labour income) held at similar levels to those in 2014 (see Table 2). Specifically, the P90/P10 ratio, which stood at 6.30 in the 2014 LCS, rose to 6.35 in the 2017 LCS.⁵ This is applicable to the different brackets of the distribution of gross income per capita. Likewise, these developments were similar irrespective of whether household income per capita is measured in net or gross terms, since there were no fiscal changes in this period which altered income distribution.

The income of households at the lower end of the per capita income distribution is mainly from labour, unemployment benefits and pension benefits. Although unemployment has fallen notably in the period of

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- 1 Using information from 2017, this box updates the findings presented in Section 5 of B. Anghel, H. Basso, O. Bover, J. M. Casado, L. Hospido, M. Izquierdo, I. A. Kataryniuk, A. Lacuesta, J. M. Montero and E. Vozmediano (2018), "Income, consumption and wealth inequality in Spain", *SERIEs*, 9(4), pp. 351-387.
 - 2 The LFS and the Continuous Sample of Working Histories (MCVL by its Spanish abbreviation) do not have the information necessary to calculate hourly earnings accurately.
 - 3 The wage income information in the LFS refers to the year of the survey. Thus, the 2017 LFS has information on wage income in 2017.
 - 4 The P90/P10 ratio is defined as the ratio of the income level of the 90th percentile to that of the 10th percentile of the distribution. The 10% of individuals with the lowest income are found below the 10th percentile. The 10% of individuals with the highest income are found above the 90th percentile.
 - 5 The information on income of the LCS for a specific year refers to the previous year. Thus, the 2017 LCS has information on wage income in 2016

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economic recovery, it remains very high, especially among groups with a low level of educational attainment, which are concentrated at the lower end of the per capita income distribution (see Chart 5). The possibilities of individuals in

this group increasing their income level are constrained by their low relative level of employability, given the high decoupling of the skills supplied by the unemployed and those in demand among employers.

Table 1
MONTHLY WAGE INEQUALITY INDICATORS (LFS)

	Monthly wage - full-time employees				Monthly wage - total employees			
	2008	2014	2016	2017	2008	2014	2016	2017
Gini	0.28	0.28	0.28	0.28	0.31	0.33	0.32	0.33
P90/P10	3.27	3.43	3.38	3.43	4.24	5.12	4.67	4.70
P50/P10	1.58	1.72	1.69	1.67	2.04	2.45	2.25	2.22
P75/P25	1.83	1.92	1.89	1.90	1.91	2.15	2.10	2.10
P90/P50	2.07	2.00	2.00	2.06	2.08	2.09	2.08	2.12

Table 2
MONTHLY WAGE INEQUALITY INDICATORS (MCVL) (a)

	Monthly wage - full-time employees				Monthly wage - total employees			
	2008	2014	2016	2017	2008	2014	2016	2017
Gini	0.32	0.33	0.33	0.33	0.36	0.38	0.38	0.38
P90/P10	3.52	3.71	3.69	3.61	4.84	5.87	5.70	5.54
P50/P10	1.64	1.74	1.73	1.69	2.19	2.62	2.53	2.48
P75/P25	1.92	1.96	1.96	1.94	2.04	2.25	2.23	2.19
P90/P50	2.14	2.13	2.14	2.13	2.21	2.24	2.25	2.23

Table 3
HOUSEHOLD GROSS AND NET INCOME INEQUALITY INDICATORS (SILC) (b)

	Household gross income per capita				Household net income per capita			
	2008	2014	2016	2017	2008	2014	2016	2017
Gini	0.36	0.38	0.38	0.38	0.33	0.35	0.34	0.34
P90/P10	5.27	6.30	6.07	6.35	4.54	5.40	5.28	5.35
P50/P10	2.30	2.65	2.57	2.71	2.17	2.56	2.53	2.56
P75/P25	2.46	2.63	2.61	2.64	2.22	2.29	2.30	2.33
P90/P50	2.29	2.37	2.36	2.35	2.09	2.11	2.09	2.09

	Household gross income				Household net income			
	2008	2014	2016	2017	2008	2014	2016	2017
Gini	0.40	0.41	0.41	0.41	0.37	0.38	0.38	0.38
P90/P10	7.62	7.20	7.17	7.38	6.42	6.23	6.00	6.26
P50/P10	3.14	2.79	2.80	2.92	2.86	2.65	2.60	2.72
P75/P25	2.86	2.92	2.90	2.95	2.62	2.67	2.66	2.69
P90/P50	2.42	2.58	2.56	2.54	2.25	2.35	2.31	2.30

SOURCES: INE (LFS and SILC) and Ministerio de Trabajo, Migraciones y Seguridad Social (MCVL).

a Monthly wage calculated on the basis of the fiscal module for workers working a full month.

b Household income per capita is adjusted with the OECD equivalence scale. 2014 income in euro.

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Chart 1
CHANGE IN REAL MONTHLY WAGE BETWEEN 2014 AND 2017 (a)

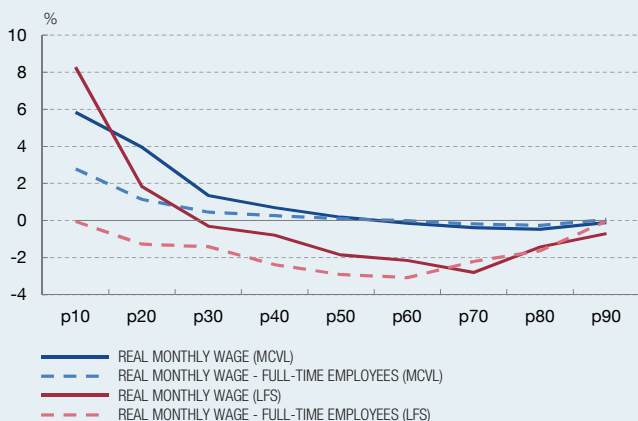


Chart 2
REGISTERED CONTRACTS (b)



Chart 3
RATIO OF PART-TIME AND NON-VOLUNTARY PART-TIME WORK

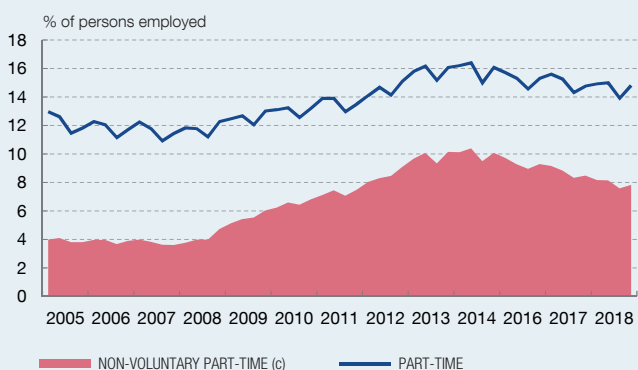


Chart 4
AVERAGE JOB TENURE OF TEMPORARY WORKERS (d)

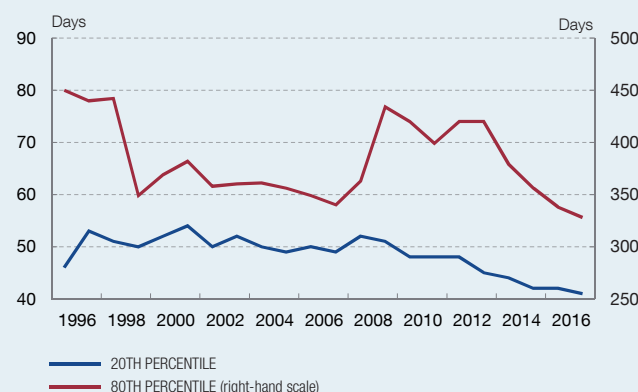


Chart 5
UNEMPLOYMENT RATE ACCORDING TO EDUCATIONAL ATTAINMENT LEVEL (e)

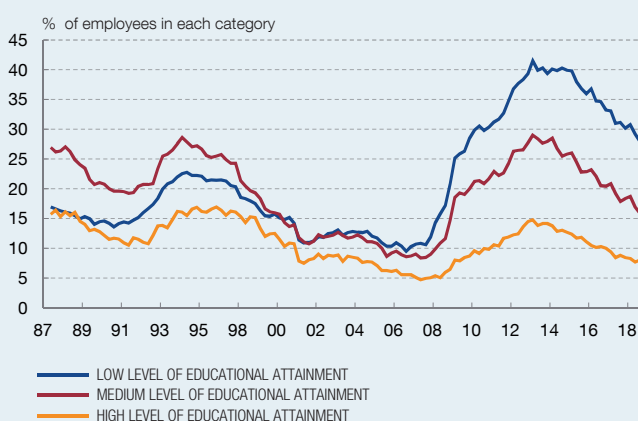
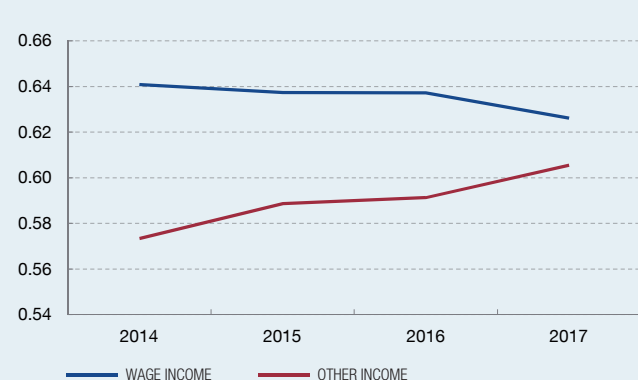


Chart 6
GINI INDEX OF HOUSEHOLDS' TOTAL WAGE INCOME AND OTHER INCOME (f)



SOURCES: Servicio Público de Empleo Estatal, Ministerio de Trabajo, Migraciones y Seguridad Social (MCVL), INE (LFS) and Banco de España.

- a MCVL (Continuous Sample of Working Histories): monthly wage calculated on the basis of the fiscal module for workers working a full month. LFS: monthly wage associated with the main employment in the survey reference week.
- b Including domestic service contracts only since October 2012.
- c Employed persons who say they are working part-time because they were unable to find full-time work.
- d Calculated based on MCVL data.
- e Low: no or only primary education, or having failed to complete, or to successfully complete, lower secondary education. High: tertiary education.
- f "Other income" includes: self-employed income, capital income, income of children under 16, old age and survival pension benefits, other social benefits, unemployment benefits and transfers from other households.

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Furthermore, small increases in pension benefits from 2014 to 2017 contributed to modest growth in the non-wage income for the group with lower per capita income (see Chart 6). By contrast, self-employed and capital income recovered, which are income sources that are overrepresented in the middle and at the higher end of the distribution. This set of factors explains that the reduction in wage income inequality has not fed through to total per capita income. The inequality of total per capita income could be expected to have fallen more since 2017 as wage inequality has continued to decline and unemployment levels among individuals with a low level of educational attainment have improved. However, uncertainty persists

about the role that changes in non-wage income in the different brackets of the total income distribution could play.

In conclusion, the recovery experienced by the Spanish economy since 2014 has helped reduce the indices of wage income inequality. These developments, nevertheless, have not resulted in a proportional decrease in per capita income inequality on account of the persistently high numbers of unemployed with a low level of educational attainment concentrated at the lower end of the distribution, and on account of the increase in recent years in non-wage income in the middle and, especially, at the upper end of the total income distribution.