

The participation rate and working hours: Differentiated impacts on the unemployment rate

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In the course of the crisis, most European countries reduced actual working hours to a greater or lesser extent through partial unemployment schemes, the reduction of overtime or the use of time savings accounts, but also through the expansion of part-time work (particularly in Italy and Spain), including on an involuntary basis. In contrast, the favourable trend in US unemployment has been due in part to a significant fall in the labour force participation rate.

Assuming that a one-point increase in the participation rate leads, holding employment constant, to a rise in the unemployment rate, it is possible to measure the impact of these adjustments (working hours and participation rates) on unemployment by calculating an unemployment rate at constant employment and checking these adjustments. Except in the United States, the countries studied experienced an increase in their active population (employed + unemployed) that was larger than that observed in the general population, due among other things to the implementation of pension reforms. Mechanically, without job creation, this demographic growth would have the effect of pushing up the unemployment rate in the countries concerned.

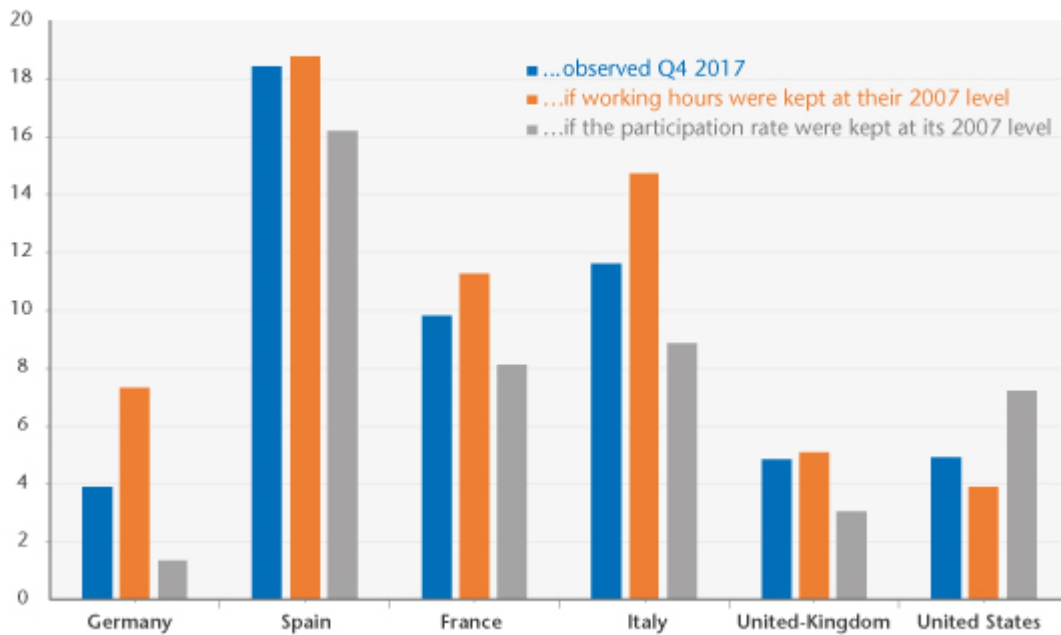
If the participation rate had remained at its 2007 level, the unemployment rate would be lower by 2.3 points in France, 3.1 points in Italy and 2 points in the United Kingdom (see figure). On the other hand, without the sharp contraction in

the US labour force, the unemployment rate would have been more than 3.2 percentage points higher than that observed at the end of 2017. It also seems that Germany has experienced a significant reduction in its unemployment rate since the crisis, even as its participation rate rose. Given the same participation rate, Germany's unemployment rate would be ... 0.9%. However, changes in participation rates are also the result of structural demographic factors, to such an extent that the hypothesis of a return to 2007 rates can be considered arbitrary. For the United States, part of the fall in the participation rate can be explained by changes in the structure of the population. The figure for under-employment can also be considered too high.

The lessons are very different with respect to the duration of work. It seems that if working hours had stayed at their pre-crisis levels in all the countries, the unemployment rate would have been 3.7 points higher in Germany and 2.9 points higher in Italy. In France, Spain, the United Kingdom and the United States, working time has fallen only slightly since the crisis. If working hours had remained the same as in 2007, the unemployment rate would have been slightly higher in all of these countries.

Note that the trend for working time to fall largely preceded the 2007 economic crisis (table). While this pre-crisis trend has continued in Germany and even been accentuated in Italy, working time has fallen to a lesser extent in France, Spain and the United States. In the United Kingdom, the reduction in working hours that was underway before 2007 has been cut short.

Figure. Unemployment rate observed at Q4 2017 and unemployment rate under the hypothesis of...



Sources: National accounts, OFCE calculations.

Table. Change in number of hours worked before and after the 2007 crisis

	Germany	Spain	France	Italy	United Kingdom	United States
1997-2007	-5.3%	-2.4%	-4.0%	-2.9%	-3.5%	-2.6%
2007-2017	-5.4%	-1.2%	-1.6%	-5.7%	0.0%	-0.6%

Sources: National accounts, OFCE calculations.

Youth “jobs of the future”: What impact on employment and government finances?

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The bill aimed at creating 150,000 “jobs for the future” [*emplois d’avenir*] for unemployed youth will be submitted to Parliament in October 2012. These 150,000 “jobs for the future” are to be reserved primarily for young people from deprived areas. What will be the net impact on employment and

public finances?

These full-time jobs, which are planned to last a maximum of five years and are paid at least the minimum wage (SMIC), will be 75% funded by the State, with the rest of the cost being borne by local authorities, associations, foundations and business. According to the Minister of Labour and Employment, Michel Sapin, the goal is to create 100,000 jobs starting in 2013.

The ex-ante cost of the measure

The gross annual cost of a “jobs for the future” contract paid at the SMIC on the basis of a 35-hour full-time week is 24,807 euros. The cost per job for the public finances is 12,831 euros for 75% of the gross wage and 4,807 euros for the exemption from employer social contributions. To this should be added the remaining cost for the employer, or 7,276 euros, when the employer is not a public entity. Based on the assumption that two-thirds of the “jobs for the future” created would be in the non-market sector and one-third in the market sector, the total average annual cost for the public finances therefore comes to 23,015 euros per contract. When fully implemented, the cost of creating 150,000 “jobs for the future” is estimated at 3.45 billion euros a year.

The impact of the measure

By assuming the creation of 100,000 subsidized jobs in the non-market sector and 50,000 in the market sector, the impact would be as follows:

With relatively weak deadweight and substitution effects in the non-market sector (20% according to Fontaine and Malherbet, 2012), 100,000 “jobs for the future” would lead to the net creation of 80,000 jobs over the presidential term. The *ex-ante* annual cost to the public finances for 100,000 “jobs for the future” in the non-market sector would be 0.12 GDP point, but *ex post* this would be only 0.07 GDP point

because of the extra income – and thus tax and social security revenue – generated by the jobs created.

The state aid (75% of the gross salary) allows a reduction in the cost of labour of 52% at the SMIC level, *i.e.* a total reduction of 71% of the actual cost of a minimum wage job if one includes the reductions in charges. With the impact of employment elasticities at a maximum labour cost at the level of the SMIC (1.2 according to a DGTPE study in 2007), the 50,000 “jobs of the future” in the market sector would generate 27,300 jobs. The *ex-ante* cost to the public finances would be 0.05 GDP point, and 0.03 GDP point *ex post*.

Ultimately, the measure would eventually create 107,300 jobs (about 25% of these in the market sector), *i.e.* an annual net creation of 72%. The *ex-ante* cost for the public finances would be 0.17 GDP point, but the *ex-post* impact of the measure on the public balance would be only -0.1 GDP point because of the extra tax and social security revenue generated by the jobs created and the consequent income gains (Table 1).

Table 1. Impact at 5 years of the measure on employment and the public finances

Création of...	Jobs (1 000)	Net creation (%)	<i>Ex ante</i> public balance (in GDP points)	<i>Ex post</i> public balance (in GDP points)
... 100,000 in the non-market sector	80 000	80 %	0.12	0.07
50,000 in the non-market sector	27 300	55 %	0.05	0.03
Total (150,000 jobs for the future)	107 300	72 %	0.17	0.10

Source : OFCE calculations.

According to statements by the Minister of Labour and Employment, two-thirds of the “jobs for the future” will be set up in 2013. To assess the impact of this measure over the presidential term, we started from the assumption that 25,000 full-time “jobs for the future” with a term of 5 years would be created each quarter from the beginning of 2013 until mid-2014.

Based on this profile for the implementation of the “jobs for

the future”, the net new job creation expected in 2013 would be 71,600, with 35,700 in 2014, and then 0 from 2015 to 2017. The *ex-post* impact on the public balance would be 0.04 GDP point in 2013 and 0.06 point in 2014, *i.e.* a cumulative impact on the public finances of 0.1 GDP point over time.

Table 2. Impact of the measure on employment and the public finances from 2013 to 2017

	2013	2014	2015	2016	2017
Jobs for the future (1000s)	100 000	50 000	0	0	0
Net job creation (1000s)	71 600	35 700	0	0	0
<i>Ex-ante</i> annual cost (billion euros)	1.44	3.31	3.45	3.45	3.45
<i>Ex ante</i> impact on public balance (GDP pts)	0.07	0.09	0.01	0.00	0.00
<i>Ex post</i> impact on public balance (GDP pts)	0.04	0.06	0.00	0.00	0.00

Source : OFCE calculations.

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