



Recent changes in self-employment and entrepreneurship across the EU

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Abstract

The Research Note examines the widespread growth of self-employment across the EU over the period 2007-2014, distinguishing the self-employed without employees from those in self-employment with employees and breaking down the growth by age group, hours worked, and education level as well as the types of activity performed. Secondly, it assesses the extent of movement from unemployment into self-employment and from one-person independent self-employment to businesses employing other people. Thirdly, it examines both the changes in the income of the self-employed over the crisis period and the extent to which the apparent low level and the reduction that has occurred in many countries reflects the true standard of living of the people concerned. Fourthly, it considers how far the level of satisfaction with their life, job and financial situation of the self-employed reported in a recent survey compares with that of employees, and how it varies with education levels and the activities in which they work. Finally, it examines the access to social protection of the self-employed and the policies in place across the EU to encourage people to set up in business.

Introduction

In many EU Member States, policies are in place to support self-employment. These are particularly aimed at the unemployed to offer them a way into work by setting up their own business. They are therefore a means of both reducing the numbers out of work and helping to expand the number of enterprises for the benefit of growth and job creation. At the same time, measures are typically in place to prevent the abuse of self-employment and the avoidance of paying social insurance contributions, and to protect those who otherwise might end up with no access to a social safety net if their business fails, if they fall ill or on retirement.

The concern here is, first, to review the changes that have occurred over the crisis period, specifically since 2007, in the number of self-employed and their characteristics in terms of their sex, broad age group, education level, type of activity and the hours they work – distinguishing between the self-employed with employees, who can loosely be called entrepreneurs, and those without employees. The latter tend to be engaged in a wide range of activities from subsistence farming in the lower-income countries and selling from a market stall, to professions such as lawyers or doctors and, increasingly in some countries, high-skilled professionals¹. They also include, however, people who are most vulnerable to exploitation, to being forced into working on their own account because of a lack of job opportunities and to being deprived of social protection if they do so.

The second concern is to examine the extent of movement from unemployment into self-employment, to see whether or not it has increased over the crisis period, especially in relation to those moving into jobs as greater effort has been made to encourage people to set up their own businesses. This leads on to the further consideration of the relative number of self-employed who progress from working on their own to taking on employees as their activity expands, of how far setting up in business as an independent tends to lead to the venture developing into a growing enterprise.

The third concern is to examine the income of the self-employed, again focusing on those without employees in particular, to see how it compares with that of employees and how it has changed over the crisis period. Relating to this, the concern is also to consider how far the income of the self-employed as reported, which relates to the net trading profits of the business, reflects their actual spending power as indicated by their ability to afford certain items.

The fourth concern is with the (self-reported) level of satisfaction of the self-employed with their life, job and financial situation and the extent to which this differs from those working as employees as well as the variation between those with different levels of education and between different sectors of activity.

The fifth concern is with the access of the self-employed to social benefits – or with the extent to which they are deprived of access as compared with those working as employees.

The final concern is with the policies in place across the EU to encourage and support people to become self-employed, and/or to start their own businesses, and the evidence that exists on their effectiveness.

Changes in self-employment over the crisis period

A number of recent studies have pointed to the relative growth of self-employment in a number of EU countries over the crisis period, associated with an increase in self-employment among women and in agriculture in some EU13 countries². They have also pointed out that much of this growth has been part-time and much of it has taken the form of 'bogus self-employment' in the sense that people work as independents but on a sub-contract basis to a single company and essentially do the same job as an employee

¹ Also called freelancers or independent professionals (iPros, see Leighton (2015))

² See, in particular, Baldassarini (2015) and Weixel (2014).

but on less favourable terms, with relatively low earnings and often without social protection (see Box on the involuntary nature of much self-employment)³.

The concern here is to document the changes in the incidence of self-employment that have occurred over the crisis period in the EU using the latest data from the EU Labour Force Survey, updating these recent studies while making a clear distinction between the self-employed with employees and those without. The concern is also to examine the characteristics of the people concerned in terms of their gender, age and so on as well as the activities they are engaged in. It is already well known that the self-employed, particularly independents, tend to be concentrated in particular sectors, such as agriculture, construction and retailing⁴. The focus here in this regard is on their occupations and whether or not these have changed over the crisis period, as a lack of jobs has given an additional incentive for people to become self-employed.

Across the EU as a whole, the total number employed was marginally smaller in 2014 than in 2007 before the global economic recession struck. The same is true of the overall number of self-employed, so that the share of the latter in total employment remained much the same over the period. (It should be noted that here and throughout the analysis, except where otherwise indicated, the data relate to the 18-74 age group, which covers virtually all of the people who are self-employed. An upper age of 74 has been chosen so as to include the significant number working as self-employed beyond the usual retirement age in many countries.) This contrasts in some degree with the experience over the years immediately preceding the global recession when there was a small decline in the share of the self-employed. The most marked difference between the two periods, however, is in the relative change in the two groups of self-employed, those with employees and those without. In the earlier period, the number of self-employed with employees tended to increase by more than those without. In the later period, the reverse was the case, reflecting the change in the business climate.

Between 2004 and 2007, therefore, in the majority of EU Member States, the number of self-employed with employees increased by more than the number without; and in half of the countries, by more than the total number of employed (Figure 1).

Figure 1 Change in the total number employed and in the number of self-employed with and without employees, 2004-2007 (Annual average % per year)



³ Hatfield (2014) found that employers in the UK were encouraging their staff to become self-employed in order to avoid tax and employment responsibilities, while another study by D'Arcy and Gardiner (2014) also for the UK, found that in addition to earnings often being irregular, self-employed workers tended to have little recourse to basic employment rights, such as paid sick leave, holiday and maternity leave; and only 30% had any kind of pension. In addition to these, a report of the UK Social Security Advisory Committee (2014) indicated that the self-employed tended to experience much greater income-volatility than other groups.

⁴ See, for example, Hatfield, 2014.

Voluntary vs involuntary self-employment: real versus bogus self-employment

There are several factors leading to bogus self-employment. One is that in almost all countries few formalities have to be fulfilled to set up as self-employed and the forms of bogus self-employment have gradually become more sophisticated (see Jorens et al. 2009, and Jorens and Lhernould 2010). Relatively restrictive national labour markets (i.e. highly regulated ones) and high non-wage labour costs are also factors creating dependent self-employment (European Parliament 2013). Motives for people choosing a working engagement as dependent self-employed include time flexibility and increased autonomy, while there can also be further advantages in the form of tax benefits and lower social contributions. From the employer's perspective, the motives for taking on dependent self-employed workers include the (partial) transfer of entrepreneurial risk, the circumvention of labour and social security laws and the avoidance of collective bargaining regulations.

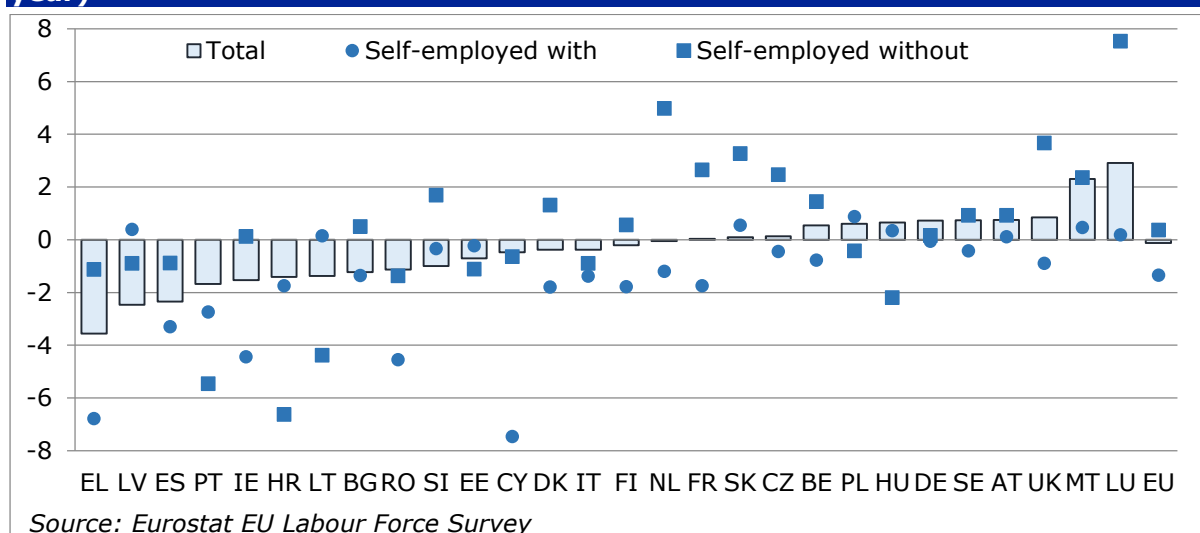
'Dependent' self-employed workers, i.e. those working for a single employer, need to be seen as a group that is distinct from both employees and the 'true' independent self-employed according to Böheim and Mühlberger (2009), who use data from the British Labour Force Survey to show that those in dependent self-employment are pushed rather than pulled into it. They argue, therefore, that dependent self-employment is a 'necessity' and not an 'opportunity' to become an entrepreneur.

A report from Eurofound (2013) concluded that the biggest difference between dependent self-employed workers and other groups (employees, self-employed without employees) lies in their financial situation. Their households have a correspondingly high level of difficulty making ends meet and they have the lowest level of job security, and the fewest opportunities for career advancement. The earnings of the self-employed, however, seem to vary as much as their working conditions, much depending on the activity they are engaged in (European Parliament 2013), and differences from the earnings of employees can be small or non-existent in a number of cases.

At the same time, McKay et al. (2012) found that bogus self-employment was often associated with casual work and with precariousness while providing the least levels of employment and welfare protection. In addition, the dependent self-employed are also more likely to be targets of working time abuse (European Parliament 2013).

Between 2007 and 2014, on the other hand, the number of self-employed without employees increased by more than those with in most countries (in 21 of the 28, the number rose by more or declined by less); and in the majority of them, by more than the total employed (in 16 Member States, it rose by more or fell by less) (Figure 2). It should be noted that the number of self-employed without employees increased in 16 Member States, in 10 by more than 1% a year, whereas total employment rose in 12, but only in two, Malta and Luxembourg, by more than 1% a year. The number of self-employed with employees increased in only 8 countries and in none by over 1% a year.

Figure 2 Change in the total number employed and in the number of self-employed with and without employees, 2007-2014 (Annual average % per year)



Much the same pattern of change is true for men and women taken separately, though in both periods (more so in the later one than the earlier) the number of women in work (self-employed as well as employees) increased by more than men. Over the 2007-2014 period, the total number of men employed in the EU as a whole fell by 0.5% a year, while the number of self-employed without employees rose marginally and the number with fell substantially, by just under 2% a year. The total number of women employed over the same period increased by 0.3% a year and the number of self-employed without employees by almost 1% a year, whereas the number with employees declined slightly (by 0.2% a year). This pattern of change was common to most countries, though not all.

Changes in hours worked

An increase in part-time work over the crisis period is as evident among the self-employed as among employees. Over the period from 2007 to 2014, the proportion of self-employed without employees usually working less than 35 hours a week rose by almost 4 percentage points to just over 26% across the EU as a whole, with those working less than 20 hours a week rising by 2 percentage points to 10% of the total (Table 1). The rise was common to all but 5 Member States (Romania, Slovenia, Poland, Lithuania and Croatia), all of them in the EU13, and was especially large in Luxembourg and Cyprus.

Table 1 Part-time working among the self-employed without employees, 2014 and the changes 2007-2014

	% with usual hours worked of: (2014)			% -point change, 2007-14		
	01-19	20-34	Below 35	01-19	20-34	Below 35
LU	13.8	19.3	33.1	6.8	10.9	17.8
CY	16.5	26.8	43.3	9.9	7.2	17.0
FR	9.4	14.7	24.1	4.7	6.0	10.7
EE	8.7	18.1	26.8	4.7	4.4	9.1
AT	14.0	17.6	31.6	5.1	3.8	8.9
FI	13.7	21.0	34.8	3.9	3.2	7.1
IT	8.2	17.4	25.5	2.7	3.7	6.4
IE	7.7	17.1	24.9	1.9	4.2	6.1
UK	16.3	21.9	38.3	1.3	4.1	5.4
SE	14.3	20.0	34.3	2.0	3.2	5.2
MT	5.9	15.0	20.9	1.6	3.0	4.6
DE	17.6	16.7	34.3	2.5	1.3	3.8
CZ	2.6	9.1	11.7	0.7	2.9	3.6
DK	10.2	14.7	24.8	3.1	-0.7	2.4
LV	4.1	18.1	22.2	0.2	2.2	2.4
HU	1.7	7.7	9.4	0.3	2.1	2.4
ES	3.9	10.6	14.5	0.8	1.5	2.3
PT	23.0	17.6	40.6	9.8	-7.6	2.2
NL	22.2	24.7	47.0	-0.1	2.0	1.9
EL	3.6	9.6	13.2	1.4	0.3	1.7
SK	0.6	4.0	4.6	0.0	0.9	0.9
BG	1.2	7.8	9.0	0.3	0.2	0.5
BE	5.5	9.5	15.0	0.3	-0.1	0.2
RO	3.0	22.6	25.7	1.4	-2.7	-1.3
SI	2.2	9.8	12.0	-1.2	-0.2	-1.4
PL	2.5	11.8	14.3	-2.3	-1.3	-3.6
LT	3.2	18.7	21.9	2.1	-8.6	-6.5
HR	5.5	19.6	25.1	-6.6	-7.1	-13.7
EU	10.0	16.3	26.3	2.0	1.8	3.8

Note: Countries ordered by increase in % working below 35 hours a week.

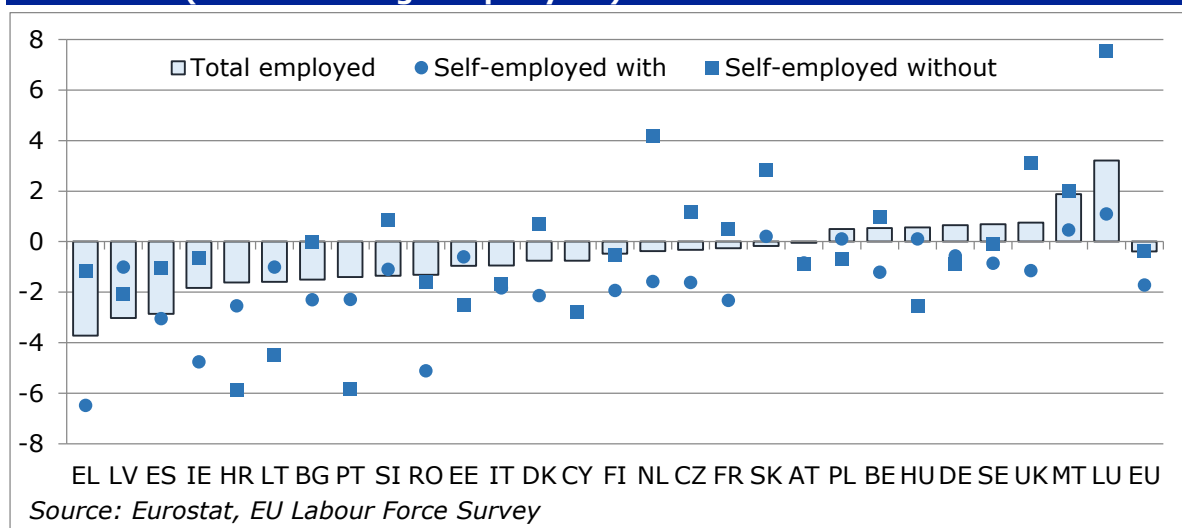
Source: Eurostat, Labour Force Survey

The rise was particularly marked among men, the proportion increasing on average by over twice as much as for women (by just over 4 percentage points to 19% as against just under 2 percentage points), with only the same 5 countries as listed above showing a reduction.

The effect of the shift to part-time work over the crisis period was to reduce the average number of hours worked by the self-employed without employees by just over two hours a week across the EU as a whole between 2007 and 2014, which is over twice the reduction in the average hours worked by all in employment. There was also a reduction in the average hours worked by the self-employed with employees, which was only slightly smaller. Nevertheless, it was still the case in 2014 that the self-employed on average worked longer hours than employees (40.1 hours a week for the self-employed without employees and 48.6 for those with employees as compared with 36.3 for employees). Part of the longer time worked is due to the larger number of men among the self-employed, but self-employed women still tend to work longer hours than those who are employees, even if the difference is smaller than the overall one (34.8 hours a week for self-employed without employees as against 33.3 for employees; for men, the difference is wider, 42.9 as against 39.1).

The bigger reduction in working time among the self-employed than among employees means that on an hours-adjusted basis – i.e. in terms of the total number of hours worked – the relative increase in self-employment (without employees) no longer holds true⁵. Between 2007 and 2014, the number adjusted in this way declined by almost 0.5% a year, the same as the total employed, while the number of self-employed with employees, adjusted in the same way, fell by just under 2% a year (Figure 3). It was still the case that there was a greater increase or smaller fall among the self-employed without employees than among employees in half of the Member States (as opposed to 17 in respect of the unadjusted figures), but there was an increase in only 10 countries as against 16 for the unadjusted figures. This was still more than for the self-employed with employees, whose total hours worked increased other than marginally in only two countries, Luxembourg and Malta.

Figure 3 Change in the total number employed and in the number of self-employed with and without employees, adjusted for changes in hours worked, 2007-2014 (Annual average % per year)

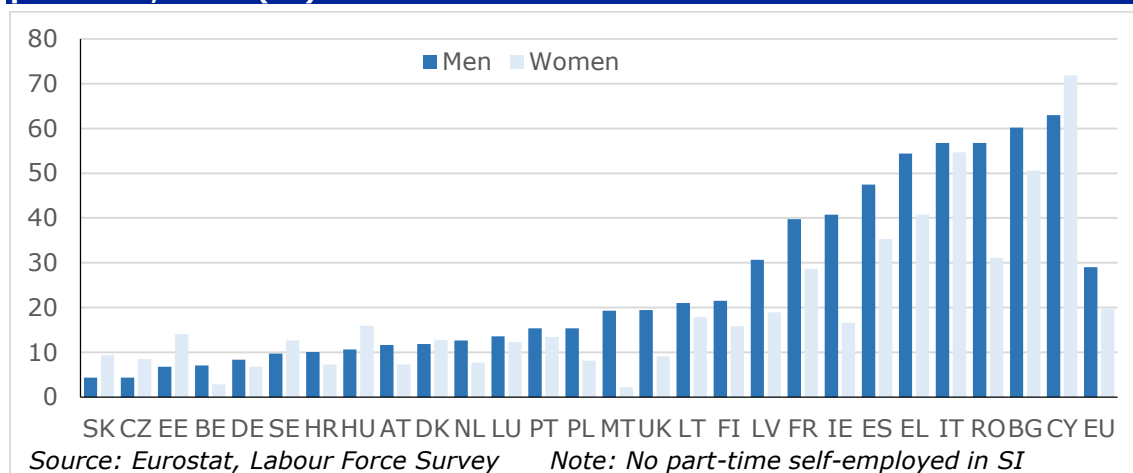


Much of the increase in part-time working among the self-employed seems to have been involuntary, in the sense that many of the people concerned reported to the Labour Force Survey that the main reason for them working part-time was that they could not find full-

⁵ Note that it is only possible from the LFS data to examine changes in hours worked per week. There are no data on working time over the year, on whether or not people worked throughout the year or for only part of it.

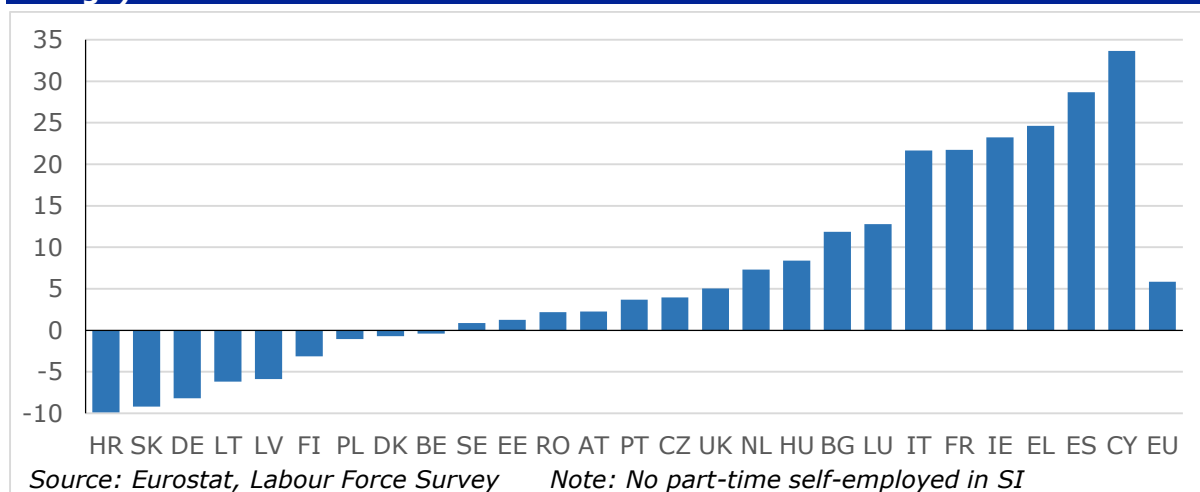
time work. In 2014, almost 30% of men who were self-employed and worked part-time gave this as the main reason for doing so, the proportion exceeding 50% in Greece, Italy, Romania, Bulgaria and Cyprus (Figure 4).

Figure 4 Proportion of men and women self-employed working part-time reporting their inability to find full-time work as the main reason for working part-time, 2014 (%)



Between 2007 and 2014, the proportion of the self-employed working part-time in the EU reporting that they did so because of being unable to find full-time work increased by 6 percentage points (Figure 5). The increase was much the same for men and women, both overall and in most Member States (the correlation coefficient between the change in the proportion reporting this as the main reason for men and that for women is 0.85). The increase was common to most Member States – there were only 9 in which it declined – and was especially large in the countries in which the proportion was largest in 2014.

Figure 5 Change in the proportion of the self-employed working part-time because of not being able to find full-time work, 2007-2014 (Percentage point change)



The age structure of the self-employed

The self-employed tend to be older than employees. This is true both for those with employees and those without. It is equally true for both men and women. Accordingly, the number of self-employed as a proportion of those employed increases with age⁶.

⁶ For more discussion see also: 'Entrepreneurship: an avenue back to work for all?', European Commission, 2015: <http://ec.europa.eu/social/main.jsp?langId=en&catId=1196&newsId=2314&furtherNews=yes> and the related publication referred to there.

In 2014, the self-employed without employees accounted for only just under 4% of the 18-24 age group in the EU as a whole (Table 2), while those with employees made up just 0.5%. While there was only limited variation in the latter figure between countries (the largest figure was in Italy at 1.7% of the age group), the relative number of self-employed without employees varied markedly, ranging from 11-12% in Italy and Romania to only 0.5% in Estonia. In Italy, the high number is due to a significant number of young people working on a sub-contract basis for a single employer – and essentially doing a job that an employee would otherwise do but with less security and in most cases with limited access to social protection. In Romania, it is due to many working in subsistence farming (as shown below).

Table 2 Proportion of self-employed without employees within total employment by broad age groups, 2014 and change 2007-2014

	% in each age group, 2014					% point change 2007-2014				
	18-24	25-34	35-49	50-64	65-74	18-24	25-34	35-49	50-64	65-74
BE	4.3	7.8	9.5	11.2	49.6	1.0	0.5	0.4	-0.5	-0.6
BG	4.9	5.8	7.6	10.3	18.8	2.1	0.9	0.4	0.7	-7.5
CZ	5.7	12.0	14.2	15.5	30.2	-0.3	1.5	1.2	2.9	7.2
DK	1.2	3.4	5.3	6.5	23.7	0.4	-0.2	0.5	0.5	0.8
DE	1.3	4.0	6.1	7.0	22.8	0.2	-0.9	-0.7	0.1	-2.3
EE	0.5	5.0	5.7	6.6	7.0	-0.8	-0.3	-0.7	0.4	-0.9
IE	1.5	5.8	11.3	18.0	47.7	-0.1	0.0	-1.0	0.3	3.2
EL	9.7	16.0	23.3	36.7	54.3	3.6	1.9	2.4	5.0	7.3
ES	5.3	8.6	11.8	5.1	32.2	1.0	1.0	0.1	-0.3	-3.0
FR	1.6	5.4	7.1	9.0	26.8	0.4	1.7	0.9	0.1	3.3
HR	1.7	4.0	8.2	13.4	53.5	-4.9	-2.4	-4.0	-4.8	-23.3
IT	11.7	15.2	16.3	16.6	48.5	1.9	-0.9	-0.7	-2.2	-2.3
CY	4.1	9.2	11.5	17.7	43.8	-2.1	0.9	-0.1	-0.3	-4.1
LV	4.7	4.5	7.4	8.0	10.3	1.4	0.6	0.9	0.8	-4.2
LT	4.3	4.8	10.0	9.9	17.2	-1.8	-2.6	-1.3	-3.0	-4.6
LU	1.5	4.4	4.7	8.1	34.8	0.1	1.3	0.8	1.5	12.3
HU	1.6	3.8	5.2	7.9	32.2	-0.3	-0.8	-2.3	-1.1	9.4
MT	1.9	8.0	10.5	12.5	27.1	-1.8	0.8	-1.4	0.5	-10.0
NL	4.2	8.5	12.5	14.3	50.0	1.2	3.0	3.6	2.5	5.6
AT	1.7	4.4	7.3	8.9	19.7	0.2	-0.6	0.0	0.0	1.5
PL	4.1	10.0	15.3	18.4	30.6	-0.9	-0.6	-1.7	-2.4	-14.1
PT	3.2	5.5	9.4	17.9	68.6	-0.5	-1.8	-3.6	-7.7	-10.9
RO	11.1	10.8	16.7	26.6	68.2	0.1	-1.8	1.0	-0.9	1.9
SI	1.6	8.0	8.3	11.7	29.5	0.2	4.2	1.1	-0.4	-15.3
SK	7.7	10.8	13.6	12.0	10.4	2.9	0.0	2.8	3.5	-2.8
FI	2.5	5.1	8.5	11.4	40.2	-0.4	-0.3	-0.2	0.6	3.8
SE	1.7	4.0	5.7	8.1	31.5	0.1	-0.1	-0.4	-0.2	-7.2
UK	5.0	9.5	12.8	15.4	29.7	0.8	1.4	2.5	1.9	1.3
EU	3.9	8.0	11.0	13.0	35.8	0.2	-0.1	0.3	-0.3	-6.3

Source: Eurostat, Labour Force Survey

At the other end of the age scale, the self-employed without employees made up 13% of the total employment for people aged 50-64 in 2014 and 36% of those aged 65-74 in the EU. Those with employees accounted for 6% and 10% respectively (as compared with only 2% of those aged 25-34 and 5% of those aged 35-49). The share of the self-employed in the older age groups was particularly large in Greece, amounting to 37% of those aged 50-64 in the case of the self-employed without employees and 9% for those with employees, both figures larger than anywhere else in the EU. It was also larger than average in the other southern Member States (including Cyprus), where self-employment generally is more important than in other parts of the EU, and again for both the self-employed with employees and those without (the figure being 7-8% in each case).

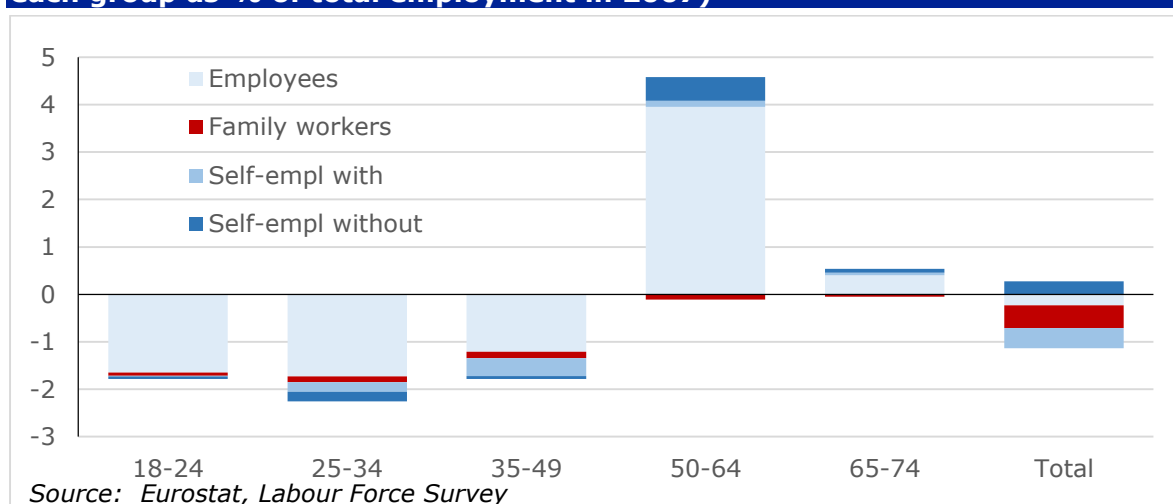
The high figure for the self-employed in the 65-74 age group reflects a tendency for people who retire to work on their own account, often on a part-time basis (56% worked less than 35 hours a week in 2014 and 29% less than 20 hours a week). In Romania and Portugal, however, it also reflects a tendency by a significant number of those working in agriculture (and fishing in the case of Portugal), to continue to work into relatively old age. In Portugal, however, the number has declined over recent years.

Indeed, self-employment represents a potential means of extending working lives (as pointed out in the Employment and Social Development Report of 2015)⁷. The limited access to social security in many EU countries, however, tends to mean that the self-employed are less well protected against possible reductions in their income should they lose their business or fall ill than employees, which is likely to act as a disincentive to people to take up or to continue in self-employment. This is a particular disincentive to those who have not yet reached retirement age but who are in their late 50s and early 60s and approaching it.

In practice, there was an increase between 2007 and 2014 in the EU in the absolute number of self-employed without employees among both the 50-64 and 65-74 age groups, which outweighed the fall in employment among those younger than this – resulting in an overall growth in employment over the period, as noted above. It was associated, however, with a decline in the share of the self-employed in the two older age groups, so that although the self-employed contributed to the overall increase in employment among those aged 50 and above over the crisis period, the contribution was less than in proportion to their share of employment (Figure 6).

There was also a very small increase in the number of self-employed *with* employees among those aged 50-64, but not by enough to offset the decline in younger age groups. In total, the reduction in the number of self-employed with employees contributed more to the overall fall in employment than the decline in employees. The biggest contribution to the overall decline in employment, however, was the reduction in the number of family workers, which accounted for a decline of 0.5% in total employment (the number of family workers fell by over a quarter over the period) and which was common to all age groups.

Figure 6 Contribution of self-employed and others by age group to the overall change in employment in the EU, 2007-2014 (Change in number employed in each group as % of total employment in 2007)

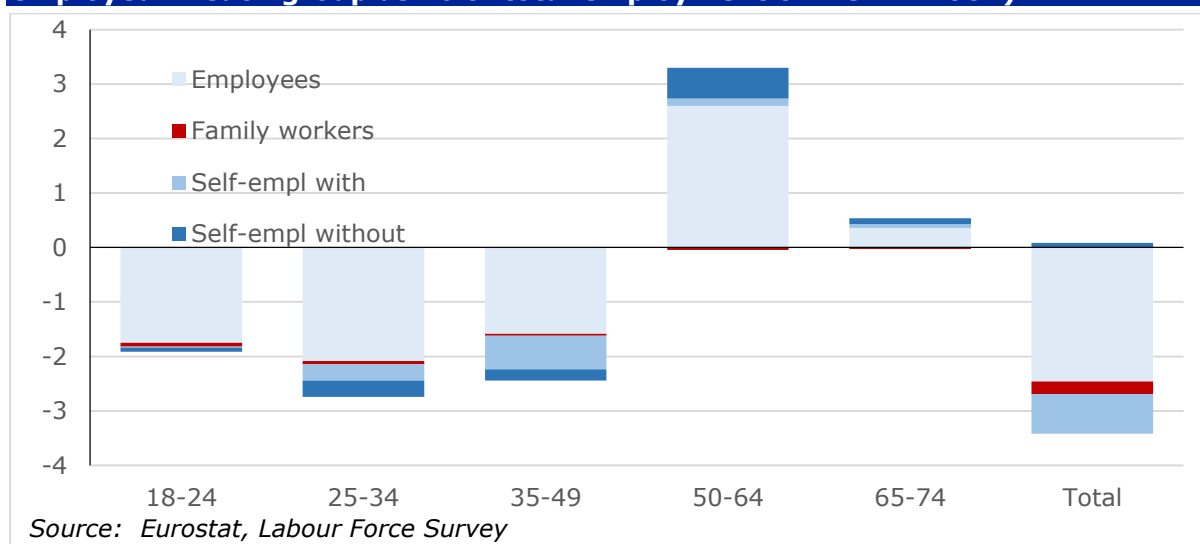


The pattern of change by age group was much the same for men and women, though there was more of an increase in the employment of women in the older age groups than for men and less of a reduction in the younger age groups.

⁷ See European Commission, Employment and Social Developments in Europe, Chapter III.2, 'The efficiency and effectiveness of social protection systems over the life course; especially Section 4 on 'Social protection systems promoting longer working lives'.

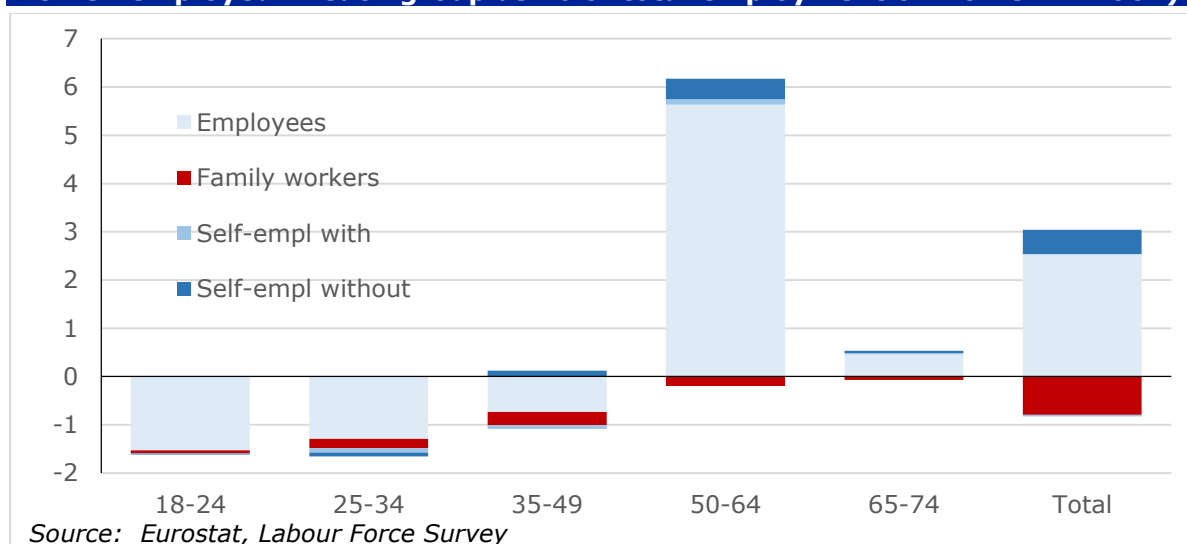
Overall, the number of men employed declined by just over 3% in the EU between 2007 and 2014. The self-employed without employees were the only broad group to show an increase, even if marginal, with the growth of the number aged 50-64 and 65-74 more than offsetting the decline among younger groups (Figure 7). The increase in those aged 50-64 was enough to maintain their share of total employment in this age group (at around 16%), but there was a significant fall in their share of the 65-74 age group (from 47% to 41%).

Figure 7 Contribution of self-employed and others by age group to the overall change in employment of men in the EU, 2007-2014 (Change in number of men employed in each group as % of total employment of men in 2007)



Self-employed women without employees were responsible for just under a quarter of the overall increase in employment of women over the period, around three times their share of the total employment of women in 2007 (Figure 8).

Figure 8 Contribution of self-employed and others by age group to the overall change in employment of women in the EU, 2007-2014 (Change in number of women employed in each group as % of total employment of women in 2007)



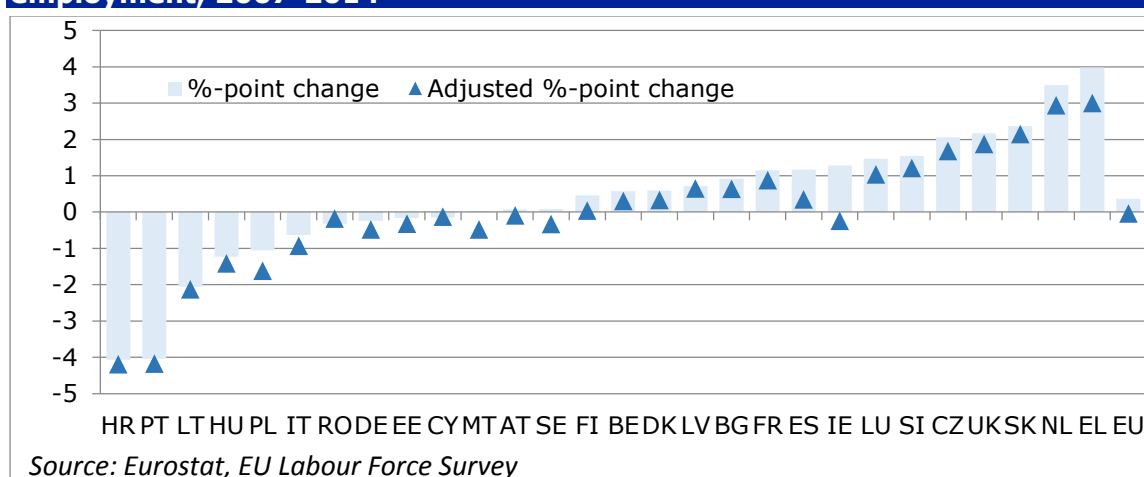
In this case, an increase among those aged 50-74 was accompanied by a rise among those aged 35-49, which more than compensated for a decline in the younger age groups. As in the case of men, the number of self-employed with employees declined, if only marginally, while the main reduction was among women employed as family workers, which was common to all age groups and which alone accounted for a reduction of almost 1% in the

number of women in employment (women family workers fell by nearly a third between 2007 and 2014).

The above implies that the relative increase in the overall share of the self-employed without employees in total employment over the crisis period is largely a result of a shift in the age composition of employment towards the older age groups in which the self-employed make up a relatively large share. In 2014, those aged 50 and over accounted for 30% of total employment in the EU against 25% 7 years earlier, reflecting three factors - the ageing of the population, the widespread tendency for people of 50 and over to continue working rather than retiring, and a reduction in employment among younger people (especially those under 25).

The effect of this shift in the age composition of employment on the relative increase in the number of self-employed can be illustrated by calculating what the share of the latter in total employment would have been in 2014 if the age composition had remained the same as in 2007. This shows the change in the overall share resulting only from changes within broad age groups (those shown in Table 2). In the case of the self-employed without employees, instead of the share increasing over the 2007-2014 period in the EU as a whole, it would have declined slightly had the age composition of employment remained unchanged (Figure 9).

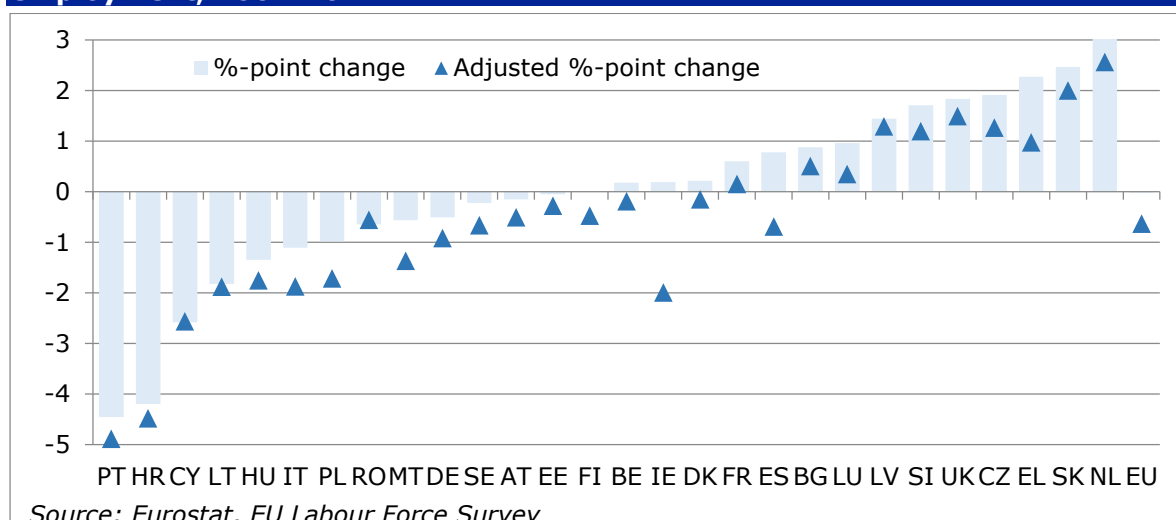
Figure 9 Change in self-employed without employees as a share of total employed, actual and adjusted for the change in the age structure of employment, 2007-2014



In all countries, the effect of freezing the age structure is to reduce the increase in the share of the self-employed or increase the reduction, though the size of the effect varies across countries reflecting the scale of the shift from younger to older workers over the period. This was particularly marked in Ireland, where the substantial decline in the employment of young people was behind the upward shift in the age composition of employment (and where adjusting for this turns a significant increase in the share of the self-employed without employees into a decline). It was also marked in Spain and Greece for the same reason.

Much the same effect is evident for the self-employed with employees, whose share in total employment remained unchanged over the period but would have fallen by 0.6 percentage points if the age structure of those in work had remained the same (Figure 10).

Figure 10 Change in self-employed with employees as a share of total employed, actual and adjusted for the change in the age structure of employment, 2007-2014



Again the effect is particularly pronounced in Ireland, where a small increase in share becomes a reduction of 2 percentage points, and in Spain, where a larger increase becomes a reduction of almost 1 percentage point. In Greece too, the effect is to reduce the increase in share by over 1 percentage point.

This illustrates the fact that the observed relative increase in the number of self-employed over the period, especially in the three countries listed, owes much to the reduction in employment among young people. In other words, the fact that younger age groups accounted for a smaller share of the total in employment, partly because of the crisis and partly because of demographic trends, had the effect of increasing the relative weight of older age groups among whom the self-employed were more represented. In most countries, there was no general increase in the importance of self-employment over the period across age groups, contrary to what the aggregate figures might suggest.

The education level of the self-employed

The focus here is on those aged under 35 who are one of the three main groups that have been identified as being under-represented among the self-employed (the other two are non-EU nationals and women) and the group displaying a particularly high rate of joblessness⁸. Measures for encouraging and supporting self-employment among this age group have, therefore, been implemented in many EU Member States. The particular concern is with their educational attainment level, which is important for their capacity to develop businesses that have the potential to create jobs for others. The aim is to examine to what extent the educational level of the young self-employed differs from their counterparts in paid jobs and how far it has changed over the crisis period. Once again the focus is on the self-employed without employees.

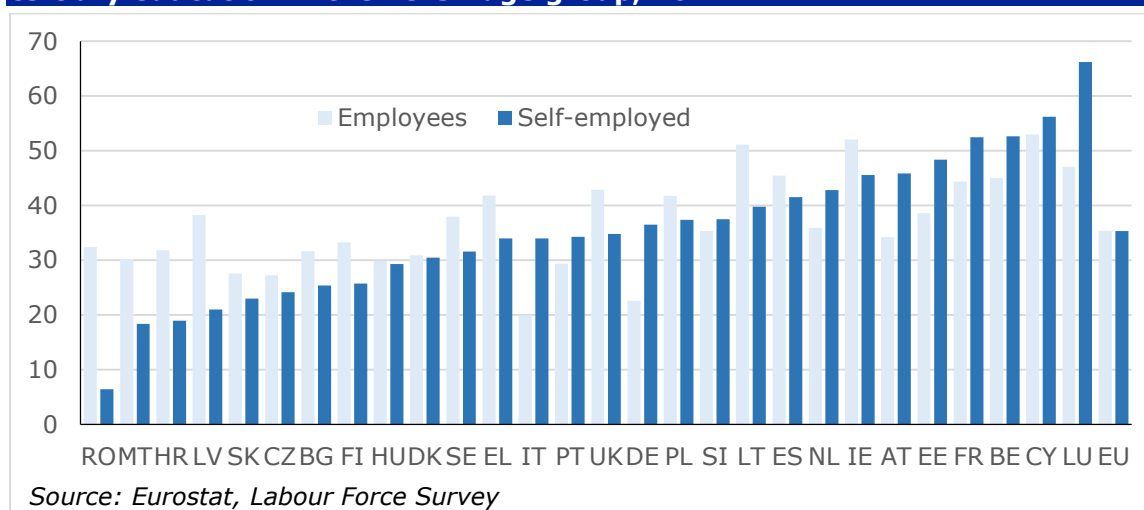
In the EU as a whole in 2014, the proportion of the self-employed aged 18-34 with tertiary education was much the same as for employees in all age groups (just over 35% of the total). There were, however, more Member States in which the proportion of the self-employed with this level of education was smaller than for all employees (17 of the 28) than those in which the reverse was the case (Figure 11). Many of the countries in which the proportion of the self-employed with tertiary education was below that of employees were lower-income ones, such as Romania, Malta, Croatia, Bulgaria, Latvia, Lithuania and Slovakia, as well Greece, in which many of the self-employed work in agriculture. At the

⁸ See 'Entrepreneurship: an avenue back to work for all?', European Commission, September 2015 <http://ec.europa.eu/social/main.jsp?langId=en&catId=1196&newsId=2314&furtherNews=yes>

same time, the proportion was also smaller in some of the higher-income ones, in particular, in Finland, Sweden and the UK as well as Ireland.

In most of these countries, it is also the case that a larger share of the self-employed aged 18-34 had only basic schooling compared with employees, which was also the case at the EU level (17% as against 14%), though in the majority of countries, the reverse was true (Figure A.1 in the Annex). In Malta and Romania, the proportion of the self-employed with a low level of education was particularly large, with around half of those without employees having no qualifications beyond compulsory schooling.

Figure 11 Proportion of employees and self-employed without employees with tertiary education in the 18-34 age group, 2014



The proportion of the self-employed aged 18-34 with tertiary education increased by more than among employees over the 2007-2014 period – by almost 10 percentage points in the EU as a whole as opposed to 7 percentage points (Figure 12). This was the case in the majority of Member States, though it was not the case in a number of lower-income countries – in particular, in Romania, Croatia, Greece and Latvia – as well as in some higher-income ones (Germany, Luxembourg and Austria). At the same time, the proportion of the self-employed with only basic schooling declined by more than among employees over the period in the majority of Member States (16 of the 28).

There is, therefore, little sign in most countries of the average level of education of the self-employed declining relative to that of employees over the crisis period, which might have been expected had young people with low education – and, so less well-equipped to start a business – been encouraged to become self-employed.

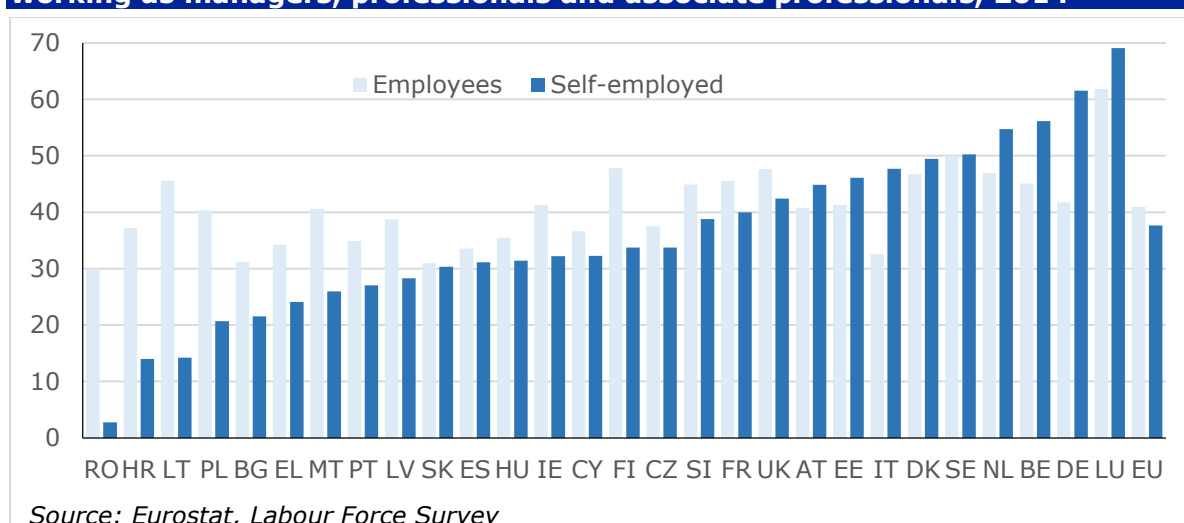
Figure 12 Change in the proportion of employees and self-employed without employees with tertiary education, 2007-2014 (Percentage point change)

The occupations of the self-employed

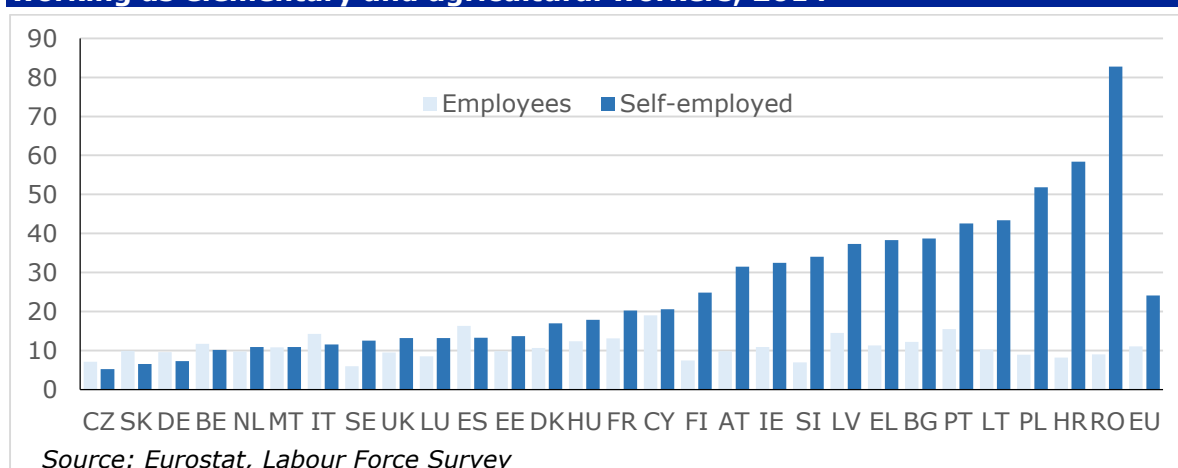
The analysis can be extended further by examining the activities, or occupations, that the self-employed without employees are engaged in. Overall in the EU, just under 38% were classified as managers, professionals or associate professionals in 2014, while almost a quarter were agricultural or elementary workers, mostly the former. In between these two broad occupational groups, 16% were reported to be sales or service workers, many of them shopkeepers, and 21% skilled or semi-skilled manual workers, such as craft workers (Annex Table A.1).

There was some difference between men and women, with more self-employed women working as managers or professionals than men (44% as against 34% in the EU as a whole) as well as sales or service workers (27% as opposed to 11%) and more men working as skilled or semi-skilled workers (30% as against only 4%). There was less of a difference in the relative number working in agriculture or elementary occupations (around 25% of men, 21% of women).

The occupational composition of the self-employed, however, varies considerably across countries both in absolute terms and relative to the composition of employees. Whereas in the Netherlands, Belgium, Germany and Luxembourg, well over 50% of the self-employed without employees worked as managers, professionals or associate professionals in 2014 (in each case significantly more than the proportion of employees working in these occupations) in Greece, Bulgaria and Poland, the figure was less than 25%, in Croatia and Lithuania, under 15% and in Romania, just 3% – in all cases, substantially less than the proportion for employees (Figure 13). Indeed, in 19 of the 28 countries, the relative number of self-employed working in this broad occupational group was smaller than that of employees, and in another, Sweden, it was much the same. Accordingly, in most countries, the self-employed working independently were not employed disproportionately in the highest-level occupations.

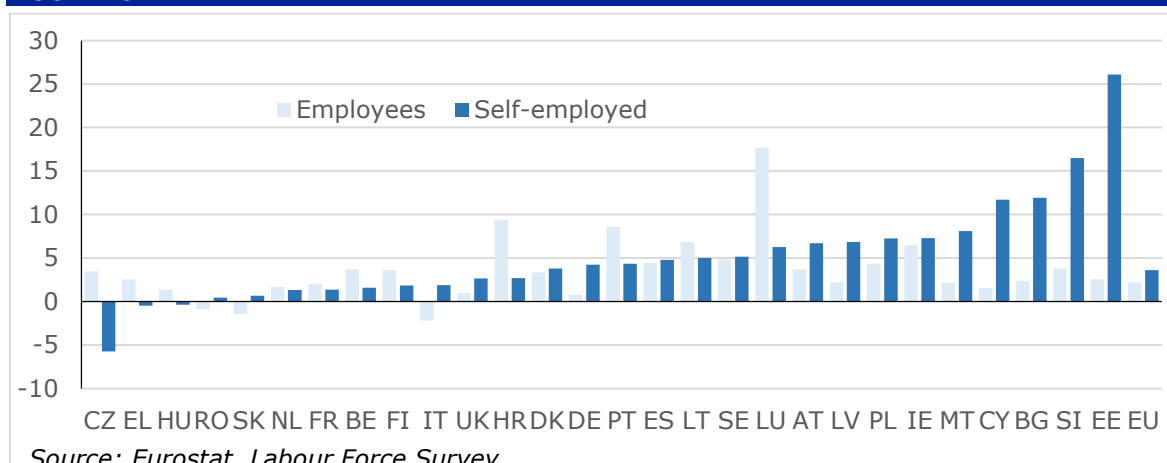
Figure 13 Proportion of employees and self-employed without employees working as managers, professionals and associate professionals, 2014

The proportion of the self-employed working in elementary or agricultural jobs in Member States is to some extent the reverse of the proportion working in high-level ones. In this case, the relative number varies from over 80% in Romania, over 50% in Poland and Croatia and over 40% in Portugal and Lithuania (all countries where agriculture remains important and in each considerably more than the relative number of employees) to 10% or less in Belgium, Germany, Slovakia and the Czech Republic, in each case less than for employees (Figure 14). In the last two of these countries, a substantial proportion, around 40% or so, of the self-employed worked as skilled and semi-skilled manual workers, around twice the proportion in most other countries.

Figure 14 Proportion of employees and self-employed without employees working as elementary and agricultural workers, 2014

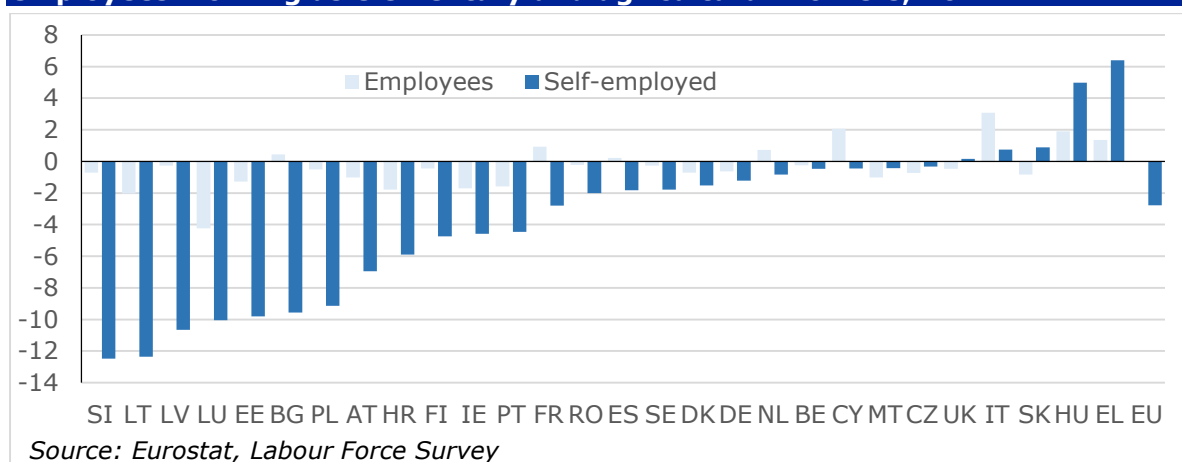
In all countries apart from the Czech Republic, Greece and Hungary, the proportion of self-employed without employees working as managers or professionals increased over the 2007-2014 period, though the increase was marginal in Romania and Slovakia. In most countries, moreover, the increase was more than for employees (Figure 15).

Figure 15 Change in the proportion of employees and self-employed without employees working as managers, professionals and associate professionals, 2007-2014



Equally, there were only 5 Member States – Italy, Slovakia, Hungary, Greece and, marginally, the UK – where the proportion working in agriculture or elementary activities increased over the period (Figure 16). In most countries, the proportion fell substantially and by significantly more than for employees. With only a few exceptions, therefore, there is little sign that more of the people becoming self-employed have gone into elementary activities over the crisis period. Indeed, in many countries, they have gone into high-level occupations.

Figure 16 Change in proportion of employees and self-employed without employees working as elementary and agricultural workers, 2014



Movement from unemployment into self-employment

Since policies exist in many EU countries to encourage and support people who are unemployed to become self-employed (see below), it is relevant to consider the numbers involved and whether or not they have increased in recent years. The additional aim is to examine whether there are differences between men and women in this respect.

Across the EU as a whole only 25% of the men who had been unemployed in 2013 were in employment in 2014, the rest, 75%, either remaining unemployed or moving out of the labour market completely, into retirement in some cases, in others simply ceasing to look actively for work. Of those who had moved into employment, only a small number were self-employed (including both those with and those without employees, though predominantly the latter). Though the figure is in line with the overall share of the self-employed in total employment, it amounted to just 3% of those who had been unemployed

the year before (Table 3)⁹. (Only 0.3% of the previously unemployed were self-employed with employees.) The proportion becoming self-employed was above 5% only in the UK, and then only marginally, and above 4% only in Cyprus and Romania, where (as noted above) a substantial number of the self-employed in both cases work in agriculture or elementary occupations.

Table 3 Proportion of men unemployed in previous year who were employees or self-employed at time of survey, 2007-2014

	Men				Women			
	2014 Employee	2014 Self-employed	Change 2007-2014 Employee	Change 2007-2014 Self-employed	2014 Employee	2014 Self-employed	Change 2007-2014 Employee	Change 2007-2014 Self-employed
BE	20.6	1.6	1.2	-0.6	18.8	1.3	0.0	0.7
BG	16.2	1.9	-12.0	-1.9	15.9	0.8	-7.6	-1.2
CZ	45.3	1.7	9.0	-1.3	37.2	2.3	9.3	0.7
DK	41.9	1.6	-2.5	-0.4	43.0	1.1	-1.5	-0.3
DE	23.3	1.5	-4.2	-0.6	25.0	0.9	-3.5	-0.4
EE	35.1	3.9	1.0	2.0	45.2	2.2	-4.2	0.1
EL	12.0	1.6	-12.5	-1.6	9.8	0.7	-8.4	-1.0
ES	19.4	2.6	-25.2	-1.3	18.2	1.9	-19.6	-0.2
FR	25.5	3.2	-8.9	-0.9	28.9	2.0	-3.7	0.7
HR	16.6	1.7	-4.6	-3.3	17.8	0.6	0.7	-2.3
IT	15.9	3.9	-10.8	-3.3	15.6	3.3	-7.2	-1.6
CY	26.9	4.2	-22.1	-4.0	28.8	4.7	-21.7	-0.4
LV	36.5	2.6	-1.0	-1.1	42.7	2.3	3.0	0.1
LT	30.5	2.2	-5.8	-3.0	25.5	2.0	-18.4	-0.2
LU	41.1	2.2	-13.5	1.2	43.4	3.5	-27.1	3.5
HU	38.8	1.1	7.7	-0.1	35.6	0.6	7.1	-0.4
MT	28.7	3.6	9.4	1.4	29.6	4.1	-4.4	2.7
AT	29.7	2.0	-4.2	-1.3	33.3	1.8	-6.4	0.1
PL	25.0	3.0	-4.2	-0.5	22.7	2.1	-3.7	0.2
PT	27.4	2.6	-11.3	-1.2	25.5	1.9	-8.8	-0.7
RO	10.9	4.6	-5.6	-5.3	11.7	3.0	-10.5	-0.2
SI	20.1	2.6	-1.6	0.8	16.1	1.8	-6.2	1.3
SK	32.3	2.1	3.8	-0.4	31.1	1.7	6.5	1.0
FI	25.8	1.6	1.6	-0.8	25.6	1.0	-6.1	0.3
SE	42.5	2.9	-8.9	-0.6	45.1	1.7	-8.8	-0.2
UK	35.6	5.2	-5.5	-0.9	45.1	3.2	-2.4	-0.2
EU	22.2	2.9	-8.3	-1.4	22.3	2.1	-6.9	-0.2

Note: Unemployed in previous year' relates to those reporting to be unemployed one year before the survey.

Data for BG for 2007 relate to 2008. NO data for IE and NL.

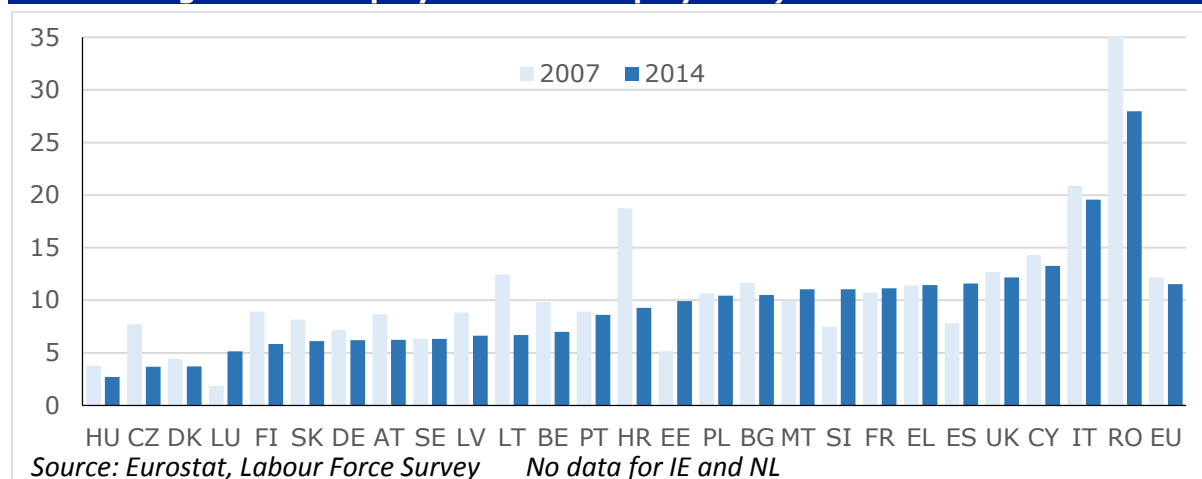
Source: Eurostat, Labour Force Survey

Over the crisis period, between 2007 and 2014, the proportion of unemployed men becoming self-employed within a year declined by a third in the EU and fell in all Member States, except Estonia, Luxembourg, Malta and Slovenia. The proportion moving from unemployment into paid jobs (i.e. becoming employees) also declined but by proportionately less, if only slightly so. Thus in 2007, just over 12% of men moving from unemployment into employment in the EU during the previous year became self-employed; in 2014, the figure was 11.5% (Figure 17). There were only 6 countries in which the proportion in 2014 was larger than in 2007 – France and Spain in addition to the four listed above – where the proportion of the unemployed becoming self-employed rose. Accordingly, there is no evidence in these figures of more of the unemployed moving

⁹ The analysis here is based on the Labour Force Survey data on the employment situation of those surveyed one year before.

into self-employment over the crisis period because of a shortage of jobs, although a number of Member States introduced measures to encourage such a move (see section below on policies towards self-employment).

Figure 17 Men unemployed in previous year who were self-employed at time of survey in relation to all those who had become employed, 2007-2014 (% of men moving from unemployment into employment)



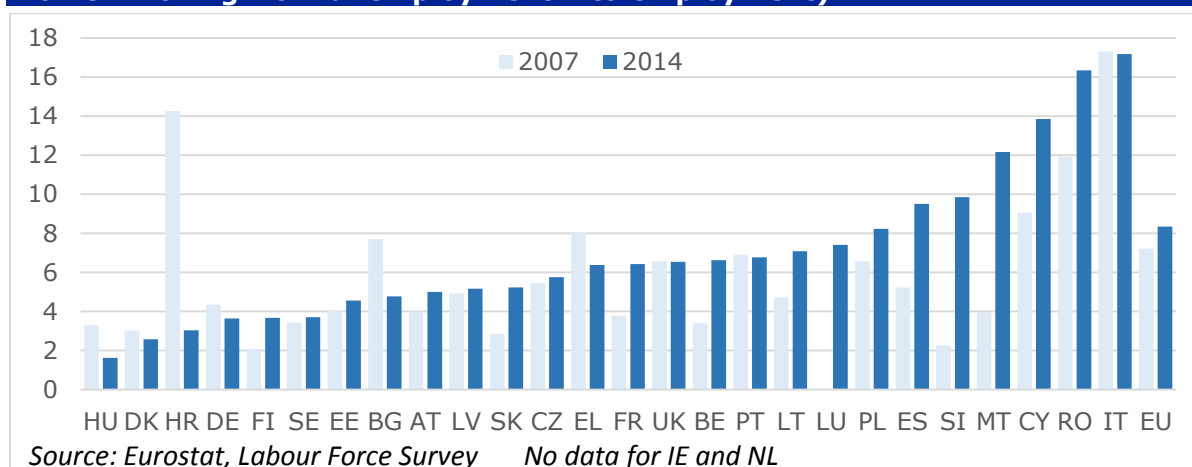
The picture is slightly different for women. Though the relative number moving from unemployment into self-employment is smaller than for men, as could be expected, the number in 2014 in the EU was only marginally below that in 2007 and fell by less than the number of unemployed becoming employees. There was, therefore, a slight increase in the proportion of women moving into employment from unemployment who became self-employed over the crisis period, which is in line with the above finding that there was a rise in the importance of self-employment among women over the period.

In 2014, only 2% of women who had been unemployed a year before were self-employed across the EU (Table 3 above) and only 0.2% were self-employed with employees. The figure was above 4% only in Cyprus (as for men) and Malta and above 3% only in Luxembourg, the UK and (marginally) Romania (in the latter two of which the figures for men were also relatively high).

The overall proportion declined only slightly between 2007 and 2014 and there were 12 Member States in which it increased (most notably in Luxembourg, though the small sample size in this case makes the figures relatively uncertain).

The proportion of women in the EU moving from unemployment into employment over the year preceding the survey who became self-employed was slightly higher in 2014 than in 2007, in contrast to men. There were also only 6 countries in which the proportion was smaller in 2014 than in 2007, though there were three others (the UK, Portugal and Italy) where it was much the same (Figure 18).

Figure 18 Women unemployed in previous year who were self-employed at time of survey in relation to all those who had become employed, 2007-2014 (% of women moving from unemployment into employment)



Self-employed taking on employees

The same data source can be used to examine the extent to which the self-employed working on their account, and on their own, expand their business and take on employees; or, in other words, the extent to which operating independently on one's own account is a stepping stone to becoming an entrepreneur, in the sense of developing an enterprise that employs other people. This is important from a policy perspective since it gives an indication of whether supporting self-employment in itself is also a means of supporting entrepreneurship and job creation.

In the EU in 2014, only just under 2% of those who reported themselves to be self-employed without employees in the year before the survey had taken on employees over the intervening period (Table 4). Just over twice as many had ceased to be self-employed and had become an employee, while around 5% had stopped working and were either unemployed or inactive. The rest, around 90%, had remained working as independents on their own account without employees.

The proportion who had taken on employees was some 0.5 percentage points less than in 2007 before the start of the crisis and marginally less than in 2010. On the other hand, the proportion becoming employees themselves was larger than in 2007, as well as in 2010, while, unsurprisingly, the proportion becoming unemployed or inactive was also larger.

The relative number taking on employees over the year leading up to the survey in 2014 was particularly high in Germany and Finland, where in both cases it was also high before the crisis. By contrast, it was negligible in many countries, including in Romania, where most of the self-employed worked in elementary occupations.

In half of the countries (14 of the 28), the proportion taking on employees declined between 2007 and 2014, while it remained unchanged (typically at a very low level) in 5 and increased only in 7. The reduction was particularly pronounced in Sweden, Italy and Bulgaria, in the last two (at least) reflecting the extent of the crisis. On the other hand, the proportion increased in Spain where the crisis was also severe.

Table 4 Employment status at time of survey of the self-employed without employees in the previous year, 2007 and 2014

	2007			2014		
	% Taking on employees	% Becoming employees	% Not working	% Taking on employees	% Becoming employees	% Not working
BE	0.2	2.4	2.1	0.0	1.9	2.5
BG	5.3	5.3	5.0	1.1	2.3	2.5
CZ	0.3	2.4	2.0	0.3	2.0	4.0
DK	0.1	4.0	2.8	0.1	2.3	3.2
DE	4.2	4.8	3.5	7.5	3.4	2.4
EE	0.8	2.8	2.6	0.1	3.3	2.8
EL	0.1	0.6	1.5	0.1	0.3	2.7
ES	1.0	2.7	3.6	2.5	10.4	4.4
FR	2.5	2.1	3.4	2.8	6.8	8.0
HR	2.5	4.2	5.8	1.9	11.8	6.7
IT	4.2	3.4	4.0	0.1	1.4	5.1
CY	1.8	4.7	3.3	0.8	2.4	6.9
LV	1.0	5.9	3.1	0.6	2.6	2.8
LT	1.7	3.7	4.0	0.7	3.7	5.9
LU	0.6	0.9	3.9	2.2	4.3	3.0
HU	1.7	4.5	3.5	0.2	2.6	3.9
MT	1.1	1.8	5.1	0.4	1.4	5.8
AT	0.1	2.5	4.7	0.1	2.1	5.0
PL	1.5	3.3	3.6	1.6	2.1	3.9
PT	0.2	2.8	2.0	0.3	2.3	2.7
RO	0.1	2.9	6.3	0.1	1.5	15.0
SI	0.1	1.1	1.5	0.0	2.0	3.4
SK	0.7	5.1	2.2	1.1	3.7	2.9
FI	7.4	5.9	4.3	6.5	4.8	4.2
SE	7.9	4.9	2.1	0.1	1.0	1.1
UK	3.6	5.8	3.7	2.5	5.4	3.1
EU	2.3	3.4	3.6	1.8	3.8	4.8

Note: The figures relate to the proportion of the self-employed without employees the year before the survey who had taken on employees, become employees themselves or were no longer working at the time of the survey. The remaining proportion indicates those who remained self-employed without employees. No data for IE and NL. Figures for 2007 for BG and FI relate to 2008. Source: Eurostat, Labour Force Survey

Movements from unemployment into self-employment over a 3-year period

The analysis of transitions from unemployment into self-employment between one year and the next can be extended on the basis of longitudinal data from the EU-SILC which enable individuals to be tracked over a 4-year period. The interest here is in whether those who make the move out of unemployment to working for themselves remain self-employed over a run of years, in this case over three years from the end of the first year to the end of the fourth.

While the data allow the analysis to be extended in this way, however, the relatively small sample of people covered does not allow a reliable distinction between men and women. It is possible, on the other hand, to compare the experience of the years before the onset of the crisis with those after –in the sense that the first run of years for which data are available extends from 2005 to 2008 (the effects of the global recession on employment only manifested themselves in most countries at the end of 2008).

In line with the above findings, only just over 3% of those unemployed in the EU at the end of 2005 were self-employed one year later, the great majority of them without employees (Table 5). In contrast to what the LFS data show, however, the proportion was largest in Austria¹⁰ and above average in Greece, Latvia and Spain.

Table 5 The situation of those unemployed at the end of 2005 after one year and after 3 years (% of unemployed at end-2005)

	After 1 year			After 3 years		
	Self-empl with employees	Self-empl without employees	Employee	Self-empl with employees	Self-empl without employees	Employee
BE	0.0	1.3	30.7	0.0	3.3	36.4
CZ	0.5	0.0	34.4	0.0	0.2	44.0
DK	0.0	0.0	22.6	0.0	0.0	62.2
EE	0.0	0.0	39.2	0.0	0.0	34.4
EL	1.1	7.1	25.9	0.0	10.0	38.4
ES	0.0	4.7	46.1	0.0	5.1	44.7
FR	0.5	2.8	30.8	0.6	2.9	40.0
IT	0.6	3.8	24.9	1.4	3.8	26.7
CY	0.0	1.4	44.1	0.0	5.9	50.9
LV	0.0	5.0	72.2	0.0	0.8	72.1
LU	0.0	0.0	28.9	0.0	0.1	46.6
HU	0.0	0.7	58.4	0.7	1.3	58.3
MT	0.0	0.0	0.0	0.0	0.0	0.0
NL	0.0	0.9	45.9	0.0	8.5	71.0
AT	0.0	11.0	38.0	0.0	11.0	36.6
PL	0.4	2.3	28.5	0.2	4.2	42.5
PT	0.0	3.7	12.4	3.7	0.0	24.2
SI	0.0	0.0	30.4	0.0	4.4	35.7
SK	0.0	3.6	34.9	0.6	4.1	45.6
FI	0.0	0.6	36.2	0.0	4.1	40.0
SE	0.0	4.1	62.9	0.0	10.2	61.6
UK	0.0	2.3	55.1	0.0	5.8	53.2
EU	0.3	3.0	34.7	0.4	4.2	41.8

Note: Figures relate to the % of those unemployed at the end of 2005 in terms of their employment situation at the end of 2006 and 2008. Figures in italics are relatively uncertain because of the small number of observations. Countries missing are those for which there are no longitudinal data, or observations are too few to be reliable.

Source: Eurostat, EU-SILC longitudinal data, version Aug. 2014

After a further two years, the proportion of the unemployed who had become self-employed was only slightly larger in the EU as a whole, though it had increased significantly in a number of Member States, especially in the Netherlands and Sweden. There is only one country, Latvia, in which the proportion was smaller at the end of 2008 than two years earlier, which suggests some stability in the initial move. There are relatively few countries, however, where the self-employed had taken on employees, the most prominent case being Portugal where all of those who had taken up self-employment had taken on employees after three years¹¹.

Only a marginally smaller proportion of those unemployed at the end of 2010 in the EU had become self-employed one year later than in the period before the crisis (Table 6). Moreover, among those countries for which a comparison between the two periods (2005-2006 and 2010-2011) is possible, there are slightly more countries in which the proportion

¹⁰ Note, however, that because of the small number of observations, the data for Austria are relatively uncertain.

¹¹ As in Austria, the data are relatively uncertain and subject to a relatively wide margin of error.

moving into self-employment increased (9) than in which it declined (7). In this case, the largest shifts into self-employment were in Luxembourg and Slovenia, which is not in line with the LFS data examined above – though the shifts in the UK and Malta are also relatively large, which is in line.

Table 6 The situation of those unemployed at the end of 2010 after one year and after 3 years (% of unemployed at end-2010)

	Self-empl with employees	After 1 year Self-empl without employees	Employee	Self-empl with employees	After 3 years Self-empl without employees	Employee
BE	0.0	0.0	30.7	0.0	0.7	21.2
BG	0.0	0.0	30.0	0.0	0.4	34.8
CZ	0.8	1.8	34.9	0.0	4.0	46.2
DK	0.0	0.0	38.2	0.0	0.0	24.7
EE	0.9	2.0	40.3	0.0	1.5	56.0
EL	0.0	4.6	22.8	1.8	6.8	22.4
ES	0.8	0.6	29.2	0.4	3.1	29.1
FR	0.0	3.3	36.8	0.0	5.4	43.0
IT	0.6	3.1	20.1	0.0	1.6	24.6
CY	0.5	3.5	34.1	0.0	9.1	28.8
LV	2.1	1.2	34.5	0.7	1.8	44.0
LT	0.0	2.7	26.1	1.6	5.9	37.4
LU	0.0	8.3	34.7	0.0	8.3	53.7
HU	3.9	0.9	33.0	0.1	1.1	50.8
MT	0.0	4.9	16.5	0.0	4.9	33.8
AT	0.0	3.8	21.9	0.0	4.5	15.2
PL	0.4	2.1	29.6	0.0	4.2	43.8
PT	0.8	0.0	28.6	0.0	0.6	31.4
SI	0.0	9.8	45.2	0.0	10.8	45.8
FI	0.7	0.3	38.4	0.0	0.7	44.5
UK	0.0	4.7	42.5	0.0	6.4	42.0
EU	0.2	2.8	34.3	0.1	4.6	39.8

Note: See Notes to Table 5. Figures for EL relate to 2009-2012 period.

Source: Eurostat, EU-SILC longitudinal data, version Aug. 2015

There are more countries in which the proportion in self-employment was smaller at the end of 2013 than two years earlier, 6 instead of only 2 in the earlier period – Estonia, Italy, Latvia, Hungary, Portugal and Finland, suggesting that becoming self-employed was more precarious than before the crisis. On the other hand, the proportion was significantly larger after three years than after one in Greece, Cyprus and Lithuania. At the same time, in Denmark, none of those who were unemployed at the end of 2010 were self-employed three years later.

As in the earlier period, there are only 5 countries in which those who were unemployed at the end of 2010 and who had moved into working for themselves employed others by the end of 2013. In 7 countries, those who had initially taken on employees after becoming self-employed no longer employed anyone three years later.

Self-employed taking on employees over a 3-year period

The same longitudinal data can be used to provide an insight into the tendency for those working independently on their own account to take on employees over a more extended period of time than the one-year period examined above. The data indicate that before the crisis, just under 9% of those who were self-employed without employees at the end of 2005 had taken on workers after one year across the EU as a whole (Table 7). This is significantly more than indicated by the LFS data for 2007 (see Table 4 above). The figures are particularly high for Spain, the UK, Estonia, Belgium and Slovakia, which also differs

from the picture shown by the LFS data. More of the self-employed than indicated by the LFS had also become employees.

Table 7 The situation of the self-employed without employees at the end of 2005 after one year and after 3 years (% of self-employed without employees at end-2005)

	After 1 year			After 3 years		
	% taking on workers	% becoming employees	% out of work	% taking on workers	% becoming employees	% out of work
BE	11.1	7.1	1.0	14.8	16.8	0.9
CZ	6.8	4.7	4.0	7.6	16.5	7.8
EE	<i>11.8</i>	<i>17.4</i>	2.4	<i>11.8</i>	22.9	6.3
EL	2.7	3.1	6.5	3.6	10.0	13.7
ES	15.6	7.8	6.8	18.6	13.5	11.3
FR	2.8	5.4	5.8	4.0	9.8	12.7
IT	9.8	2.4	9.5	11.4	9.0	11.1
CY	6.7	8.6	3.8	5.9	16.7	7.8
LV	8.0	28.8	14.3	6.8	39.7	13.6
LT	2.4	6.2	18.5	9.0	19.3	26.9
LU	6.5	3.7	4.4	15.6	16.2	13.0
HU	3.4	14.7	20.5	8.6	23.2	30.0
NL	0.0	4.5	0.5	1.5	5.6	7.8
AT	6.6	13.2	13.7	4.1	9.2	24.6
PL	2.8	3.6	7.8	4.4	8.1	9.1
PT	2.1	3.6	14.0	11.5	7.4	15.1
SI	8.9	23.7	6.3	8.9	39.5	4.6
SK	10.8	14.1	5.1	12.6	19.0	5.8
FI	8.5	5.9	4.2	13.4	8.9	10.7
SE	6.2	21.5	6.2	5.9	33.4	12.3
UK	12.1	4.4	8.7	13.8	15.9	12.9
EU	8.5	5.4	7.7	10.2	12.0	11.7

Note: Figures relate to the % of those self-employed without employees at the end of 2005 in terms of their situation at the end of 2006 and 2008. Figures in italics are relatively uncertain because of the small number of observations. Countries missing are those for which there are no longitudinal data, or observations are too few to be reliable. Figures for after 1 year for AT relate to the situation after 2 years because of problems with the end of 1 year data.

Source: Eurostat, EU-SILC longitudinal data, version Aug. 2014

After three years, i.e. at the end of 2008, slightly more had taken on employees, the proportion increasing in most countries, most notably in Luxembourg and Portugal. There were also relatively few Member States where the proportion of the self-employed with employees had declined over the intervening two years; and in those where it had, it was only slightly less in most cases.

However, more had become employees themselves, the figure rising to around 40% in Latvia and Slovenia and a third in Sweden. Indeed, in Latvia, less than half of those who had been self-employed with employees were still self-employed at the end of 2008 – which might reflect the effect of the start of the global recession, though the figure moving out of self-employment was already high at the end of 2006. This is also the case in Hungary, where a downturn in economic activity occurred earlier than elsewhere following the implementation of fiscal consolidation measures associated with the IMF loan. The proportion who were self-employed was equally relatively small in Lithuania and Sweden (under 55% in both cases¹²) as well as Slovenia (under 60%). In these countries, even

¹² This figure is the residual of those who are employees and those who are out of work (i.e. for Lithuania, 100-19.3-26.9)

before the crisis, a substantial number of the self-employed did not opt for the development of an enterprise creating jobs for others but seem to have used self-employment as a stepping stone into a job as an employee.

In the crisis period, over the three years from the end of 2010 to the end of 2013, the experience of the self-employed was somewhat different. Only just over 2% of those who were self-employed without employees initially in the EU as a whole had taken on workers after one year; and there were only two countries – Denmark (where the figure is uncertain) and Hungary – where the proportion was over 10% (Table 8). Slightly fewer had become employees, but slightly fewer had also become unemployed or inactive despite the recession, though the figures were relatively high in Latvia and Portugal, which was also the case in the earlier period, as well as in Italy and Slovenia, where it was not the case.

Table 8 The situation of the self-employed without employees at the end of 2010 after one year and after 3 years (% of self-employed without employees at end-2010)

	After 1 year			After 3 years		
	% taking on workers	% becoming employees	% out of work	% taking on workers	% becoming employees	% out of work
BE	7.7	16.0	3.4	11.9	23.9	9.0
BG	8.5	16.5	6.6	6.1	20.6	13.0
CZ	4.5	4.2	6.4	9.0	6.9	10.4
DK	25.7	10.5	16.4	0.0	4.4	18.5
EE	4.3	1.5	3.9	8.9	11.3	0.0
EL	2.4	3.7	5.5	3.2	5.4	14.4
ES	1.9	2.3	10.7	6.5	7.9	16.1
FR	0.0	5.3	4.2	0.0	12.8	13.0
IT	7.5	5.9	15.4	10.9	13.4	19.1
CY	7.7	5.5	8.7	6.4	7.6	29.2
LV	2.2	13.9	28.5	9.3	15.6	30.4
LT	5.2	20.0	3.4	3.7	25.8	10.7
LU	3.1	2.2	10.0	11.6	2.2	16.3
HU	16.9	10.1	8.8	11.5	26.6	6.8
MT	0.8	5.1	11.1	0.8	8.4	20.5
NL	0.0	7.2	7.6	0.0	12.3	16.0
AT	6.2	8.9	5.3	10.8	4.8	11.6
PL	3.4	3.0	5.2	4.7	8.2	11.2
PT	1.9	8.4	13.9	4.1	12.4	36.7
SI	0.0	19.7	13.2	3.7	13.1	26.9
FI	9.5	3.0	6.9	9.9	8.9	19.2
UK	4.4	1.8	10.4	4.9	16.8	12.3
EU	2.3	5.1	7.0	3.2	12.5	14.0

Note: See the Notes to Table 12; figures for EL relate to 2009-2012

Source: Eurostat, EU-SILC longitudinal data, version Aug. 2015

After three years, at the end of 2013, slightly more of the self-employed had taken on employees across the EU as a whole; and in most Member States (14 of the 21 for which data is available), the proportion was larger than two years earlier.

Over twice as many had become employees compared with the end of the first year. The figure was over 20% in four countries: Belgium, Bulgaria, Lithuania and Hungary.

Twice as many had also become unemployed or inactive, the figure being over 30% in Latvia and Portugal and over 25% in Cyprus and Slovenia. In both the former two countries, only just over half of those who had been working as independents without employees three years earlier were still self-employed. Nevertheless, in a (small) majority of Member States (10 of the 19 for which it is possible to make a comparison), the

proportion remaining self-employed over a three-year period was larger in the later period (2010-2013) than in the earlier one before the crisis (2005-2008).

Income of the self-employed

This part examines incomes of the self-employed, focusing on those without employees, the aim being to throw light on the issue of whether they are in a more or less advantageous position than employees.

It is important to note that there is a question-mark over the reliability of the data on earnings of the self-employed as recorded in the EU-SILC. This is essentially because they are defined in terms of their *net trading income*, which does not necessarily reflect their true income in the sense of the goods and services they are able to purchase. In particular, what is termed *trading costs* can include purchases that can be used for personal consumption as well as, or instead of, the operation of the business. (The issue of how closely net trading income reflects purchasing power is examined below.) At the same time, it is difficult to identify a more satisfactory measure. Moreover, it is arguable that the relationship between the recorded income of the self-employed and their actual income may not change too much over time, so that changes in their income relative to employees may be more meaningful than the situation in any one year¹³.

In practice, the self-employed without employees have lower earnings on average than employees. This can be seen by relating the earnings of the self-employed to the median earnings of employees, in both cases defined in gross terms and measured on an annual basis covering only those in full-time employment who worked for 12 months during the income year (i.e. the year before the EU-SILC survey). (The EU-SILC variable is 'cash benefit or losses from self-employment'.)

In 2007, 46% of the self-employed in the EU without employees had earnings below 60% of employee median earnings (and a third had earnings below 40%), while over two-thirds had earnings below the median (Table 9). The proportion of self-employed with earnings this low was particularly large in Estonia, where over 95% of the self-employed had earnings below 60% of the employee median, as well as in Romania, Slovenia, Finland and Sweden, in all cases around two-thirds or more (75% in Sweden).

Only in Malta did a smaller proportion of the self-employed have earnings below this level than employees; and only in Malta, Bulgaria, Cyprus and Hungary did a smaller proportion have earnings below the employee median than employees (which, of course, in each country was 50%).

By 2012, the relative earnings of the self-employed had fallen further, reflecting perhaps the effect of the crisis on businesses and independents working on their own account. Some 51% had earnings below 60% of the employee median and 73% below the median itself. In most countries, the proportion of the self-employed with low earnings measured in either way was larger than 5 years earlier before the onset of the recession. The increase between the two years was particularly large in Bulgaria and Malta, but was also substantial in Belgium, the Czech Republic, Italy, Cyprus, Latvia, Hungary and Romania, where in each case the proportion of self-employed with earnings below the employee median rose by over 10 percentage points over these 5 years.

¹³ There is, however, possibly a greater incentive to increase the income treated as trading costs in depressed times in order to reduce the amount paid in tax.

Table 9 Proportion of self-employed (without employees) and employees with gross earnings below employee median earnings, 2007 and 2012 (%)

	Self-employed						Employees			
	2007			2012			2007		2012	
	<60%	60-100	<Median	<60%	60-100	<Median	<60%	60-100	<60%	60-100
BE	34.9	30.2	65.0	51.2	28.6	79.8	14.8	35.2	13.5	36.4
BG	30.1	15.5	45.6	38.2	44.9	83.2	15.0	35.0	8.4	41.4
CZ	24.3	28.8	53.1	32.0	33.5	65.5	12.2	37.8	12.7	37.3
DE	42.1	21.8	63.9	54.2	17.1	71.3	26.8	23.2	26.5	23.5
EE	95.8	2.5	98.3	90.4	4.8	95.3	19.4	30.6	17.5	32.5
IE	46.0	25.7	71.7	56.1	22.5	78.6	24.0	26.0	25.1	24.9
EL	46.8	25.0	71.7	46.3	26.0	72.3	16.3	33.7	14.4	35.5
ES	51.4	29.9	81.3	54.4	25.7	80.1	19.0	30.9	20.3	29.7
FR	46.1	17.8	63.9	45.3	24.4	69.7	14.1	35.9	13.6	36.3
HR				43.9	20.6	64.5			10.4	39.6
IT	26.5	26.8	53.3	36.5	28.4	64.9	18.1	31.9	19.0	31.0
CY	19.6	28.2	47.8	34.0	35.3	69.4	17.6	32.4	19.3	30.7
LV	52.5	23.2	75.8	72.3	17.1	89.5	23.1	26.9	20.7	29.3
LT	33.4	35.3	68.7	52.3	20.6	72.9	22.2	27.8	21.8	28.2
LU	47.7	27.2	75.0	61.0	20.4	81.4	23.2	26.8	23.2	26.8
HU	27.0	21.9	48.9	19.7	40.0	59.6	14.3	35.7	8.2	41.8
MT	9.4	23.9	33.2	29.9	41.8	71.7	14.2	35.7	15.8	34.2
NL	57.0	15.6	72.6	45.6	23.0	68.6	19.4	30.6	20.8	29.2
AT	41.4	31.1	72.4	48.8	24.3	73.1	24.5	25.4	24.9	25.1
PL	60.0	15.3	75.3	55.7	15.7	71.4	16.9	32.9	13.5	36.5
PT	59.9	17.5	77.3	61.8	16.8	78.6	10.7	38.2	9.2	40.8
RO	65.6	14.9	80.6	79.8	12.5	92.3	12.4	37.6	7.2	42.8
SI	67.3	19.3	86.6	74.2	17.1	91.3	13.2	36.8	10.4	39.6
SK	25.2	27.8	53.0	34.6	23.6	58.2	10.4	39.5	11.9	38.0
FI	63.4	16.8	80.2	62.0	20.7	82.8	8.6	41.4	9.4	40.6
SE	75.0	13.1	88.2	70.2	15.3	85.6	17.1	32.9	17.0	33.0
UK	48.1	17.1	65.2	56.3	16.1	72.3	24.0	25.9	25.5	24.5
EU	46.0	21.7	67.7	51.3	22.0	73.3	19.1	30.9	18.9	31.0

Note: Shaded figures indicate cases where the proportion of self-employed with earnings below 60% or the median is smaller than that of employees. Data for DK unreliable.

Source: Eurostat, EU-SILC microdata, version, August 2015

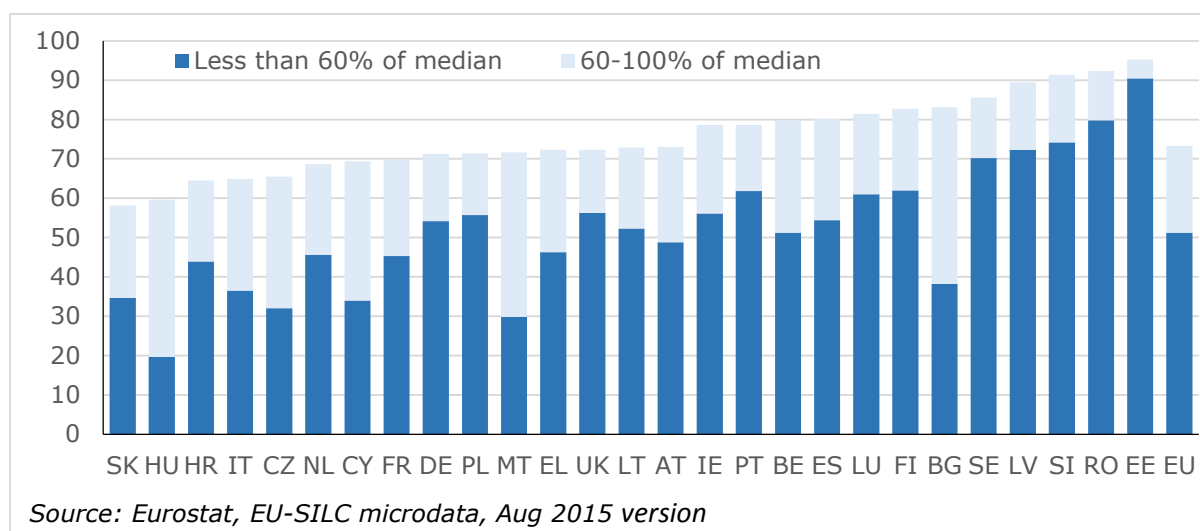
In 2012, there were three countries, Romania Slovenia and Estonia, where the proportion of the self-employed without employees with earnings below the employee median was over 90% and another 6, Bulgaria, Spain, Latvia, Luxembourg, Finland and Sweden, where it was over 80% (Figure 19). In none of the countries was the proportion below 50% and only in two, Slovakia and Hungary, was it below 60%.

The household income of the self-employed can also be compared with that of employees, since this is the main determinant of their living standards. In these terms, while the self-employed (in this case including those with and without employees¹⁴) continue to have, on average, a lower income than employees, the difference seems

¹⁴ The small number of observations means that, for a number of countries, the data become unreliable if only those without employees are analysed.

to have widened by less over the crisis period than in the case of gross earnings, at least across the EU as a whole. (To make the comparison, income is measured in gross terms before transfers for the self-employed and employee households, in each case restricting the households concerned to only those without employee earnings in the case of the self-employed and without any income from self-employment in the case of employees. They are also restricted to those who were self-employed or employees for all 12 months of the income year. Restricting households in this way means excluding some households with self-employed people, but only around 20% on average across the EU. It also means excluding some households with employees, but a smaller proportion. Income is equivalised to take explicit account of differences in household size and composition, and transfers are excluded in order to restrict the comparison with market incomes.)

Figure 19 Proportion of self-employed without employees with earnings below the median earnings of employees, 2012 (% of total)



In 2007, 32% of the self-employed working alone had equivalised household income below 60% of median gross income. This is around twice the proportion of employees with household income below this level (Table 10). There are, however, 5 countries (Bulgaria, Cyprus, Hungary, Malta and Luxembourg), where the proportion of the self-employed with household income this low was smaller than for employees. On the other hand, there were two countries (Romania and Slovenia) where the proportion was over two-thirds.

By 2012, the proportion of the self-employed with household income below 60% of the median had risen slightly to just over 33% across the EU, and 55% had income below the median. There was only one country, Cyprus, where the proportion with income below 60% of the median was smaller than for employees.

At the same time, there were more countries than in the case of gross earnings in which the proportion of the self-employed with income below the median and 60% of the median declined between 2007 and 2012 (12 instead of 4 in the case of income below the median and 10 instead of 8 in the case of income below 60% of the median). Nevertheless, there were 6 countries (Belgium, Bulgaria, Germany, Luxembourg – if from a low level – Malta and the UK) in which the proportion with income below 60% increased by more than 10 percentage points over the 5-year period and 8 (the 6 just listed minus Luxembourg, plus France, Cyprus and Slovenia) where this was the case in respect of income below the median.

Table 10 Proportion of self-employed and employees with equivalised household disposable income below employee median earnings, 2007 and 2012 (%)

	Self-employed						Employees			
	2007			2012			2007		2012	
	<60%	60-100	<Median	<60%	60-100	<Median	<60%	60-100	<60%	60-100
BE	21.6	20.6	42.2	33.1	30.7	63.8	11.6	23.6	11.1	24.2
BG	18.1	13.4	31.5	40.6	18.2	58.8	29.5	28.7	14.7	31.4
CZ	27.3	26.9	54.2	28.3	26.5	54.8	19.2	33.4	13.7	31.9
DE	17.0	23.6	40.7	28.3	24.5	52.8	14.9	18.4	18.5	20.0
EE	57.7	18.7	76.4	43.9	16.3	60.2	19.8	27.1	16.0	26.5
IE	34.9	21.0	55.9	30.8	23.1	53.9	27.7	21.3	22.9	17.6
EL	33.6	27.1	60.8	21.1	24.5	45.6	12.9	23.9	6.4	16.3
ES	45.3	24.3	69.6	31.3	22.6	53.9	15.9	27.5	13.1	21.6
FR	23.5	8.8	32.4	29.7	22.0	51.7	15.4	24.5	16.5	21.4
HR				25.7	25.2	51.0			10.7	29.8
IT	17.4	22.7	40.0	23.1	21.1	44.1	13.4	28.6	13.3	24.6
CY	13.3	34.2	47.5	16.4	43.6	60.0	22.7	27.0	24.0	25.7
LV	51.0	16.7	67.7	43.8	25.0	68.7	24.2	26.2	18.0	22.3
LT	52.6	18.0	70.7	33.4	22.1	55.5	24.3	30.1	16.5	22.1
LU	6.9	24.8	31.7	29.1	11.0	40.1	14.5	23.9	15.9	19.3
HU	12.2	28.4	40.6	15.5	17.1	32.6	17.0	27.4	13.4	27.0
MT	15.8	28.9	44.6	28.6	31.1	59.6	20.3	38.0	18.5	32.1
NL	30.4	30.1	60.6	25.1	19.7	44.8	10.5	25.6	12.1	28.5
AT	19.5	27.3	46.8	24.1	20.6	44.6	14.2	22.0	13.4	20.5
PL	42.2	17.0	59.1	32.0	19.6	51.6	12.5	27.6	14.2	26.1
PT	45.4	24.2	69.7	48.2	19.8	68.0	27.9	26.9	15.3	30.4
RO	70.5	16.3	86.8	74.5	14.6	89.1	13.1	25.2	10.1	25.2
SI	68.8	6.5	75.3	71.7	16.1	87.8	20.3	32.1	14.4	30.0
SK	35.0	29.2	64.2	29.3	30.3	59.6	22.6	35.1	19.5	36.2
FI	40.0	18.1	58.1	37.9	14.7	52.5	10.2	26.3	7.3	23.2
SE	32.0	19.9	52.0	35.6	19.4	54.9	15.7	26.0	16.2	24.7
UK	35.0	18.9	53.9	45.4	20.3	65.7	18.4	18.1	25.7	18.1
EU	31.8	21.2	53.0	33.4	21.3	54.7	15.4	23.7	16.2	22.5

Note: Shaded figures indicate cases where the proportion of self-employed with earnings below 60% or the median is smaller than that of employees. DK is excluded because data are unreliable.

Source: Eurostat, EU-SILC microdata, version, August 2015

Materially deprived among the self-employed with low income

One way of judging whether or not the earnings figure for the self-employed is a reasonable reflection of their purchasing power and their standard of living – at least for those with low income – is to examine the extent to which they are identified as being materially deprived. The EU indicator of material deprivation is defined by the inability to afford three or more of 9 selected items included in the survey. Comparing the resulting numbers with those for employees with a similarly low level of income gives an indication of whether or not their purchasing power, or the real income they have access to, is reflected in the income recorded in the EU-SILC.

In 2008, 33% of the self-employed in the EU with household disposable income of below 60% of the median (this time including transfers) were identified as being materially

deprived, as defined above (Table 11). This is less than the proportion of employees with income below this level (39%). The same was true in all but 4 Member States (Lithuania, Austria, Malta and Romania), the difference being substantial in many countries. The proportion of the self-employed with income of between 60% and 100% of the median who were materially deprived was also less than for employees both on average and in the great majority of countries. In this case there was only one (Romania) where the reverse was the case. This suggests that the income of the self-employed is a less satisfactory reflection of their purchasing power than for employees.

Table 11 Proportion of self-employed and employees with household income of less than 60% of median employee earnings and less than median earnings indicated as being materially deprived, 2008 and 2013 (%)

	Self-employed				Employees			
	2008		2013		2008		2013	
	<60%	60-100%	<60%	60-100%	<60%	60-100%	<60%	60-100%
BE	9.1	11.8	11.4	3.0	35.3	17.1	32.7	17.8
BG			66.1	31.9	85.9	79.4	90.4	77.7
CZ	7.1	10.1	29.1	12.4	47.6	28.8	46.1	25.4
DE	26.3	12.8	17.5	16.5	37.4	18.6	34.0	16.8
EE	17.8		22.7	7.6	48.4	15.1	48.4	27.7
IE	10.0	10.0	22.7	20.0	21.1	24.7	32.9	34.8
EL	35.7	21.6	60.0	40.3	55.7	34.3	71.2	52.5
ES	5.6	5.9	19.8	11.7	26.4	12.5	35.9	16.7
FR	31.7	14.1	34.0	17.6	35.5	23.4	37.0	18.4
HR			65.0	46.4			53.8	48.2
IT	26.7	12.7	40.0	21.1	40.3	21.9	56.0	33.2
CY		34.3	92.5	39.6	51.7	37.5	54.5	43.4
LV	51.5	17.3	61.9	35.5	63.2	47.8	63.9	53.5
LT	50.7	20.0	33.2	14.6	38.6	31.2	50.1	35.7
LU	2.1	0.0	12.8		20.3	2.3	27.4	5.6
HU	17.8	29.0		20.8	65.1	50.3	79.7	60.5
MT	34.3	14.6	26.9	20.6	16.3	18.1	32.7	26.2
NL	21.7	4.9	30.0	10.6	22.7	8.5	30.1	13.1
AT	40.8	7.3	8.0	10.8	28.5	17.1	15.4	13.3
PL	46.0	27.0	34.8	14.8	57.8	44.1	45.0	37.7
PT	30.0	17.7	33.9	15.6	56.0	37.7	55.2	36.8
RO	79.0	60.6	76.8	54.8	72.8	58.8	66.0	53.2
SI	19.6		22.0	8.9	39.3	31.3	40.5	28.1
SK	31.6	33.4	17.4	17.4	60.1	45.7	50.6	38.6
FI	15.4	6.3	23.8	4.2	27.0	12.3	27.0	12.1
SE	3.0	0.0	1.8		12.7	7.0	14.3	4.8
UK	12.3	11.0	19.1	11.9	26.9	14.5	29.7	21.2
EU	33.1	16.3	37.8	20.3	39.1	22.6	41.6	24.3

Note: Figures in italics are relatively uncertain because of the small number of observations. Figures missing are those for which there are no data or observations are too few to be reliable. This is the case for all figures for the self-employed for DK.

Shaded figures indicate cases where the proportion of the self-employed who are materially deprived according to the indicator was larger than for employees with similar income.

Source: Eurostat, EU-SILC microdata, version, August 2015

Between 2008 and 2013, the proportion of the self-employed with income below 60% of the median who were materially deprived increased by almost 5 percentage points, which

was around twice the increase for employees. There were 8 countries, however, where the proportion fell.

In 5 countries in 2013, the proportion of materially deprived among those with income below 60% of the median was over 20 percentage points smaller than for employees; and in another 6, it was over 15 percentage points smaller. In these countries, in particular, therefore (Germany, Spain, Italy, Portugal, the Czech Republic and Slovakia), the self-employed on low income seem, on average, to have significantly more purchasing power than employees with the same low level of income, implying that their income as recorded does not reflect their true income. This is only slightly less the case in another 5 countries (including Poland, the UK, Greece and Sweden), where the difference was over 10 percentage points.

On the other hand, there were three countries (Croatia, Cyprus and Romania), where the proportion of the self-employed concerned who were materially deprived was over 10 percentage points larger than for employees. For these countries, their recorded income seems to give a better reflection of their true income¹⁵. These countries apart, however, together with France, Latvia, the Netherlands and Finland (where the difference in material deprivation rates between the two groups is relatively small), the evidence suggests that the income of the self-employed, as measured in the EU-SILC, tends to understate the spending power and living standards of the self-employed¹⁶.

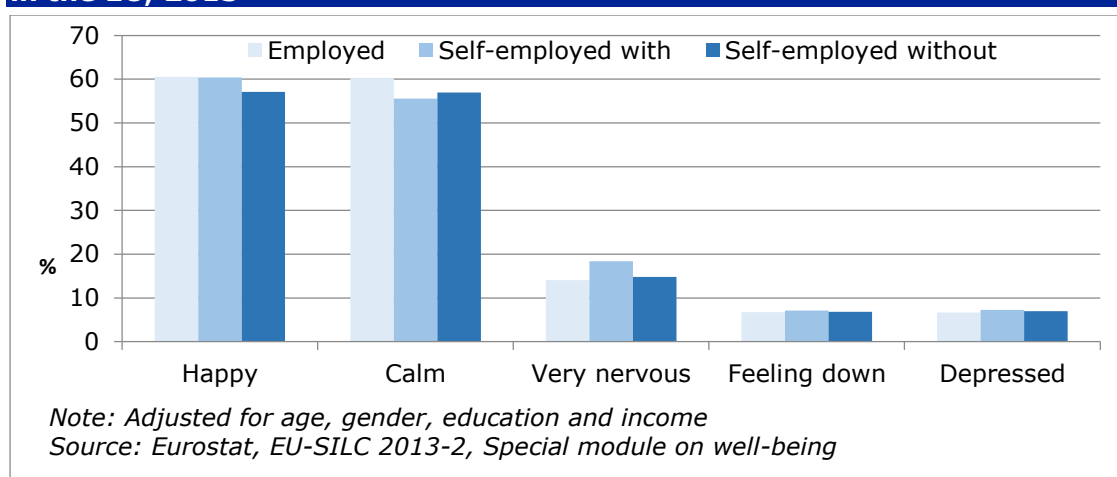
Subjective well-being of self-employed

Self-employment may be expected to bring greater freedom but also greater economic uncertainty and stress. It may benefit those with a relatively high level of autonomy, a wide skill-set and drive to succeed in business, but adversely affect those who prefer security and stability and dislike taking risks. If it is a personal choice and is supported by a favourable legal and institutional setting in the country concerned, self-employment is likely to lead to a higher degree of personal satisfaction. If, on the other hand, it is forced upon someone rather than being a free choice, the reverse could well occur. The data collected by the EU-SILC ad hoc module in 2013 on subjective well-being throw some light on this issue.

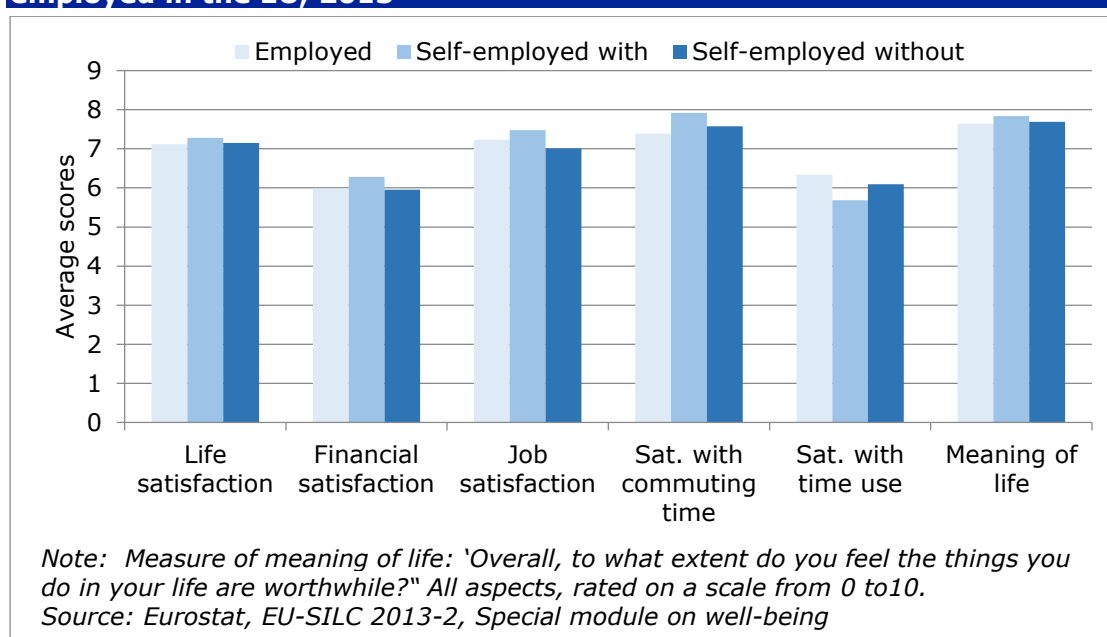
Comparing the subjective well-being of employees and of the self-employed both with and without employees across the EU, it appears that on average employees report being the most happy and calm over the four weeks preceding the survey, while also feeling less nervous, down and depressed than the self-employed (Figure 20). The self-employed with employees are more likely to experience being nervous or anxious than those without, but they also report being happier.

¹⁵ This general conclusion is consistent with that reached by Johansson Seva and Larsson (2015) who related the income of the self-employed and employees to a material deprivation indicator, in their case one with 29 separate items. Their study was for Sweden, which is one of the countries where the self-employed with income below 60% of the median have a significantly lower rate of material deprivation than employees. Their conclusion that poverty measures based on income data underestimate the actual living standard of the self-employed holds true for most EU Member States according to the analysis here.

¹⁶ See the previous footnote.

Figure 20: Measures of subjective well-being of employees and self-employed, in the EU, 2013

Self-employed people with employees generally tend to be more satisfied with their life, financial situation, job and commuting time and are also more likely to perceive their life as meaningful than both employees and the self-employed without employees (Figure 21 – note that these results are adjusted for differences in age, gender, education and income between the groups since these significantly affect people's satisfaction with life). The only aspect of their lives which they seem to be less satisfied with than the other two groups is time use.

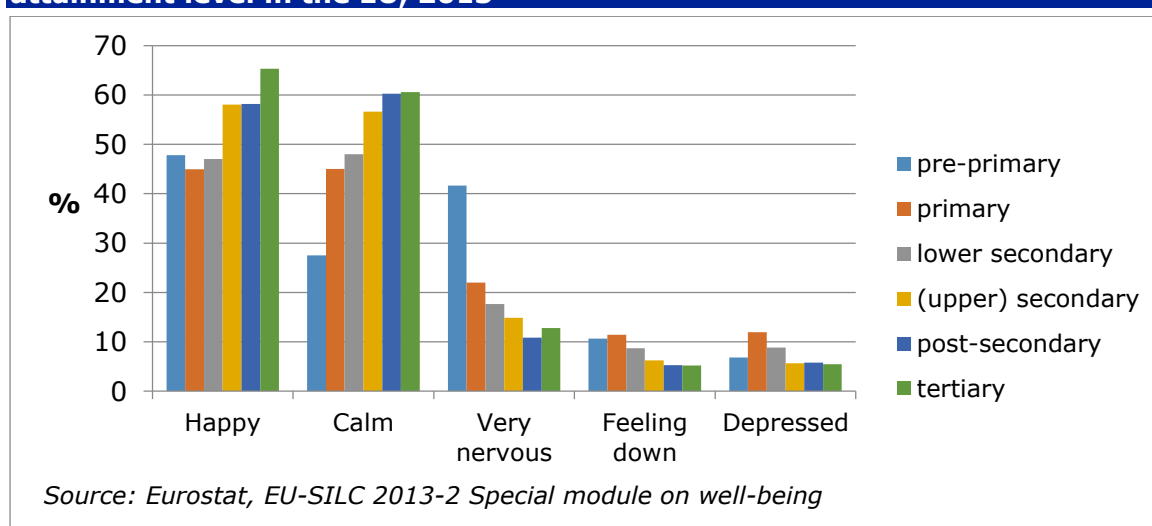
Figure 21: Satisfaction with various aspects of life of employees and self-employed in the EU, 2013

The self-employed include people with very different characteristics, such as (in particular) their level of education and the type of job that they do. The effect of these on the various measures of satisfaction is examined below, the expectation being that those with higher education and performing higher-level jobs are more likely to gain satisfaction from what they do. Equally, it can be expected that they are more likely to be self-employed out of choice rather than necessity.

The effect of education level on satisfaction

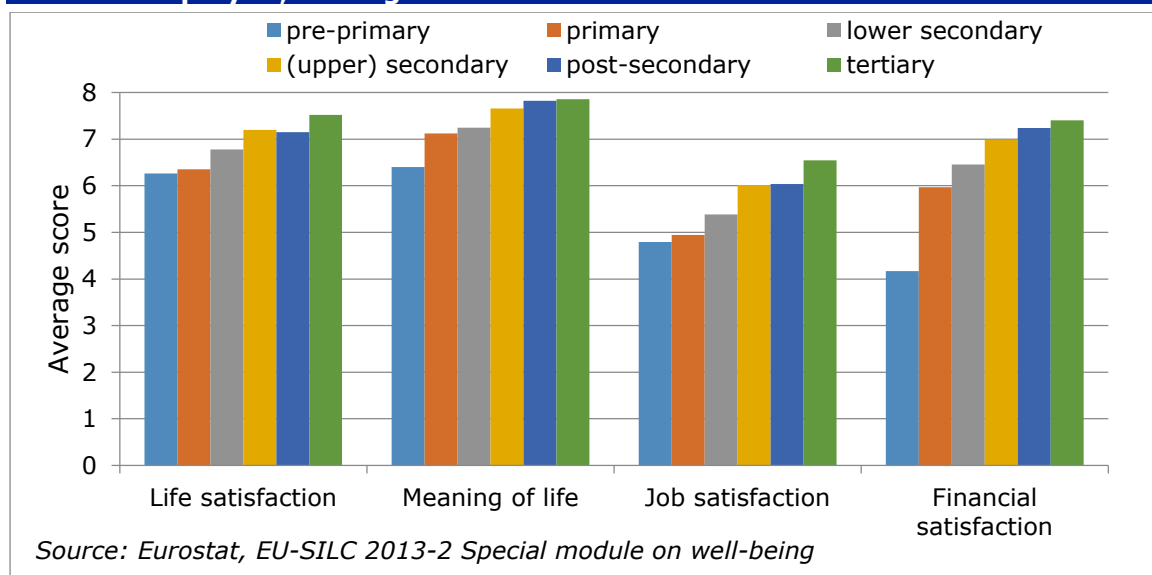
The level of education, in line with expectations outlined above, has a significant effect on the reported well-being of the self-employed, in that those with higher education are more likely to report feeling happy and calm over the preceding four weeks and less likely to report being nervous or depressed or to feel down (Figure 22). It is noticeable, however, that there is much less of a difference for feeling down or depressed than for the other emotions.

Figure 22: Measures of subjective well-being of the self-employed by education attainment level in the EU, 2013



Similar differences are evident for the various dimensions of satisfaction (Figure 23).

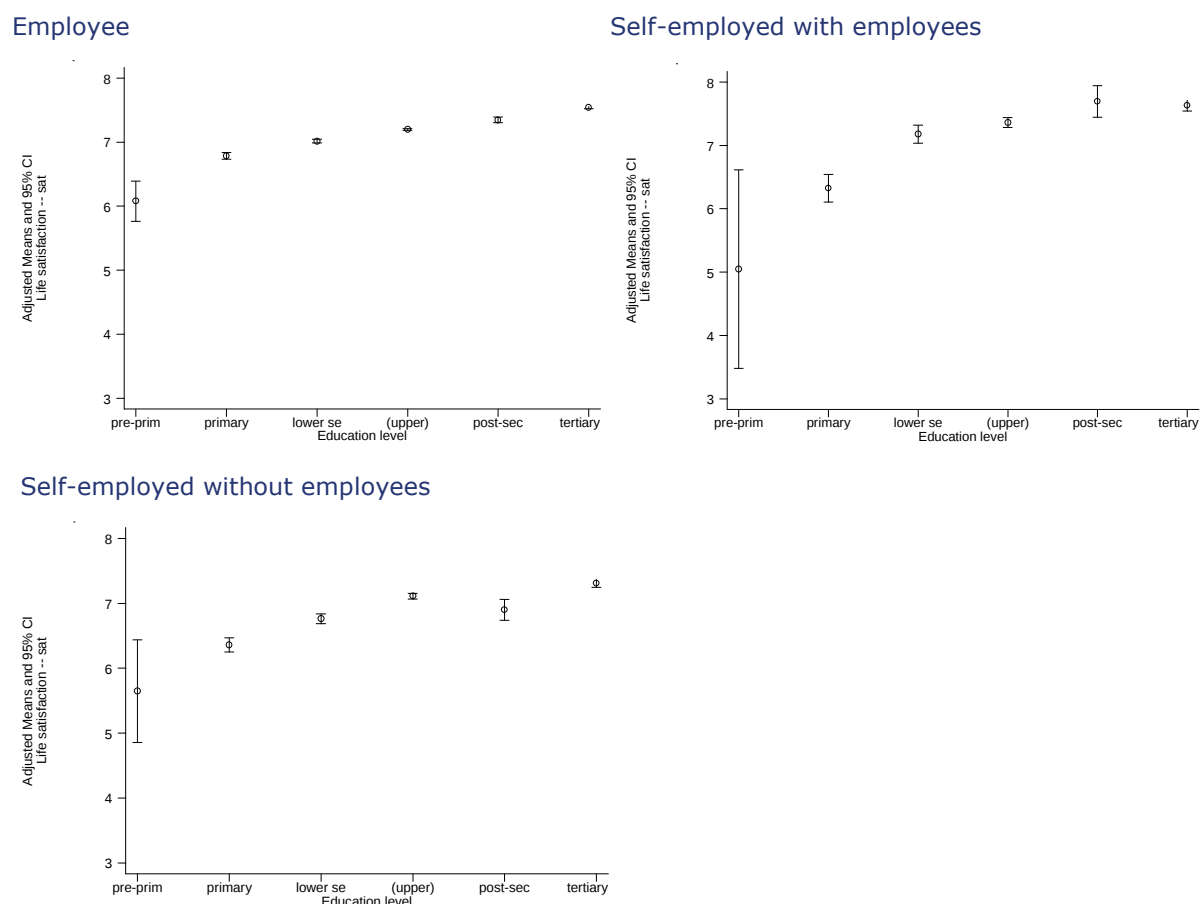
Figure 23: Satisfaction and meaning of life by educational attainment among the self-employed, average score



It is possible that these differences reflect differences in income and/or in the health of the people concerned, in the sense that those with lower education are more likely to have lower income and to suffer from health problems. The effects of these factors can be examined by explicitly adjusting for differences in income and health between those with different levels of education. Even after controlling for these differences, however, the level of satisfaction with life, work and their financial situation remains higher for the self-

employed with higher education than for those with lower levels (Figures 24, 25 and 26 – which show the confidence intervals of the estimates, defined at the 95% level, as well as the point estimates themselves). In addition, there is a larger variation in the levels of life, job and financial satisfaction between the self-employed with different levels of education than among employees. This is particularly so with regard to job satisfaction and, most especially, for the self-employed without employees.

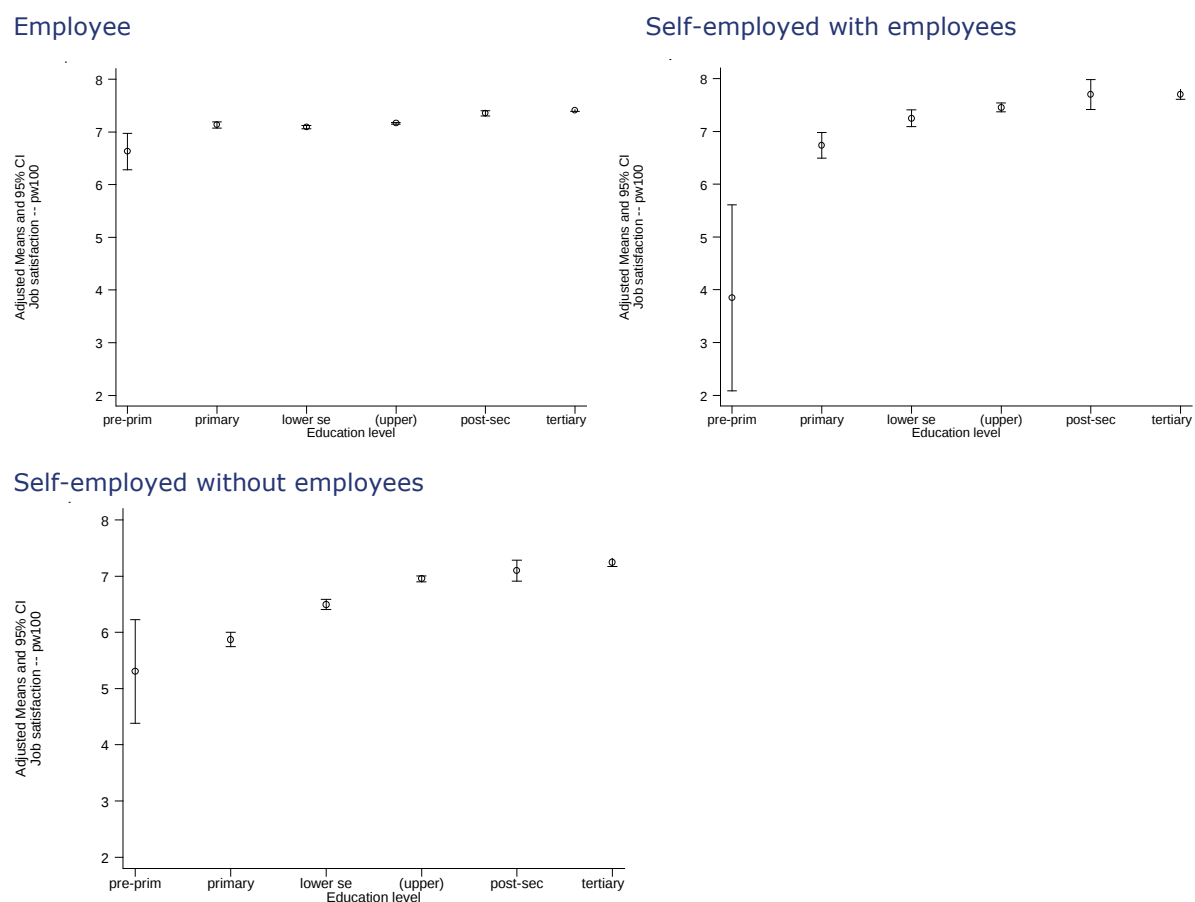
Figure 24: Life satisfaction among employees and the self-employed by educational attainment level, 2013



Note: Adjusted for age, gender and income

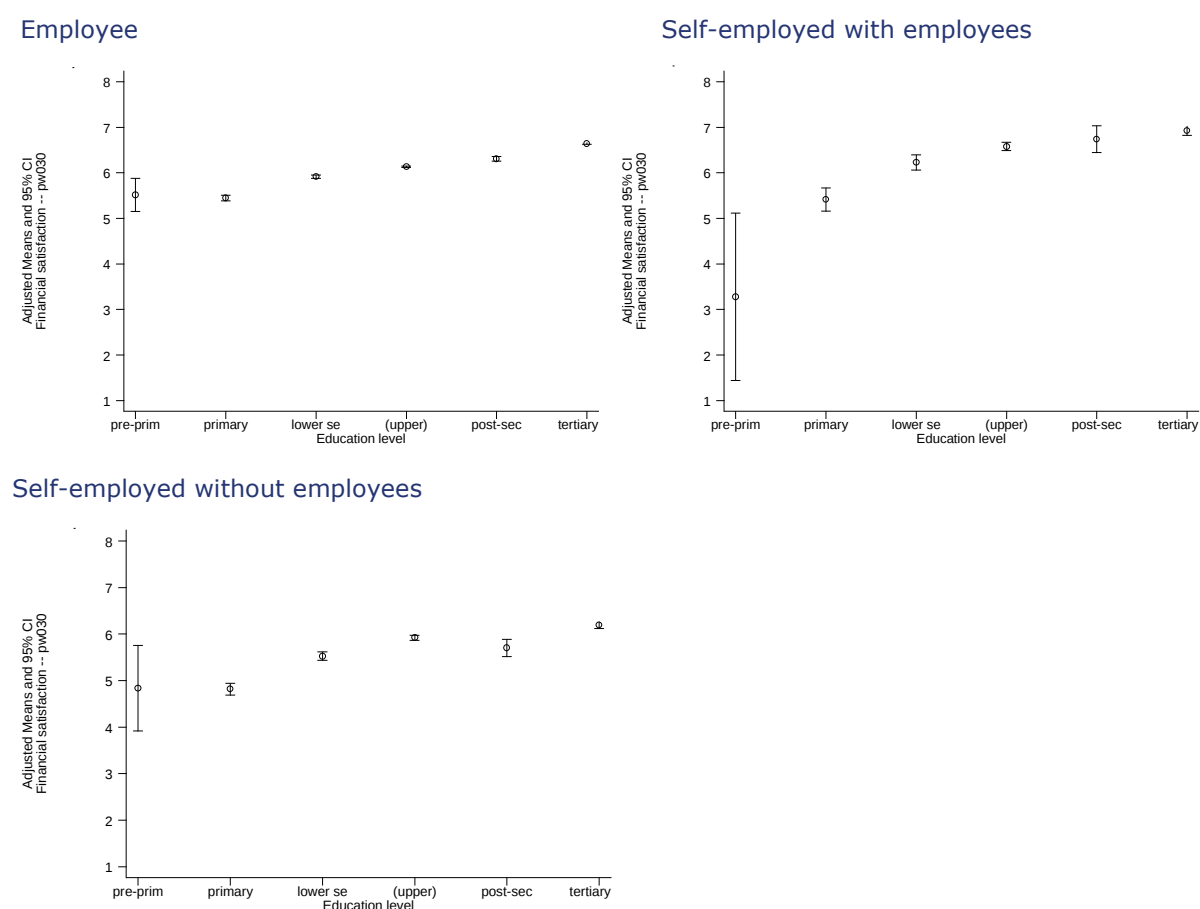
Source: Eurostat, EU-SILC 2013-2, Special module on well-being

Figure 25: Job satisfaction among employees and self-employed by educational attainment level, 2013



Note: See Figure 24

Source: Eurostat, EU-SILC 2013-2, Special module on well-being

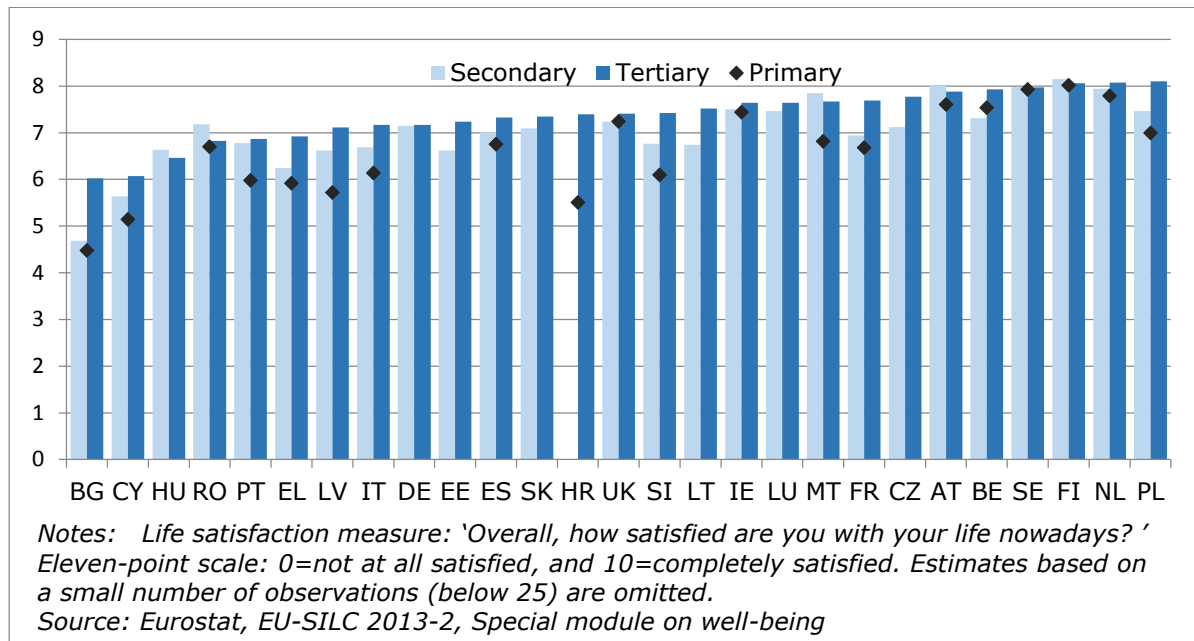
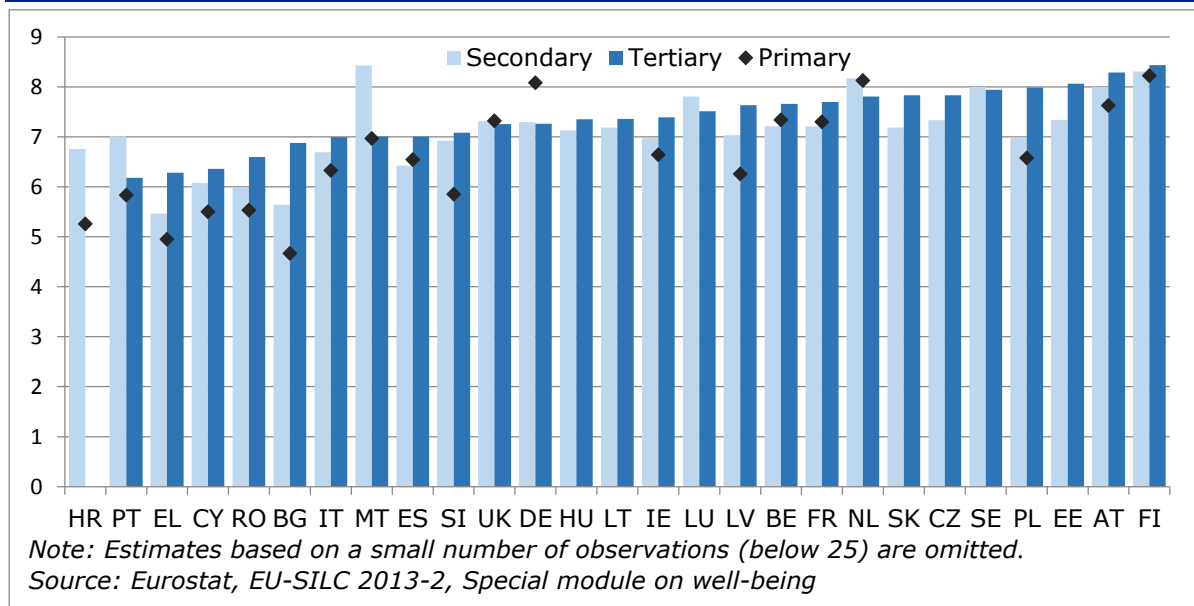
Figure 26: Financial satisfaction among employees and the self-employed by educational attainment level

Note: See Figure24

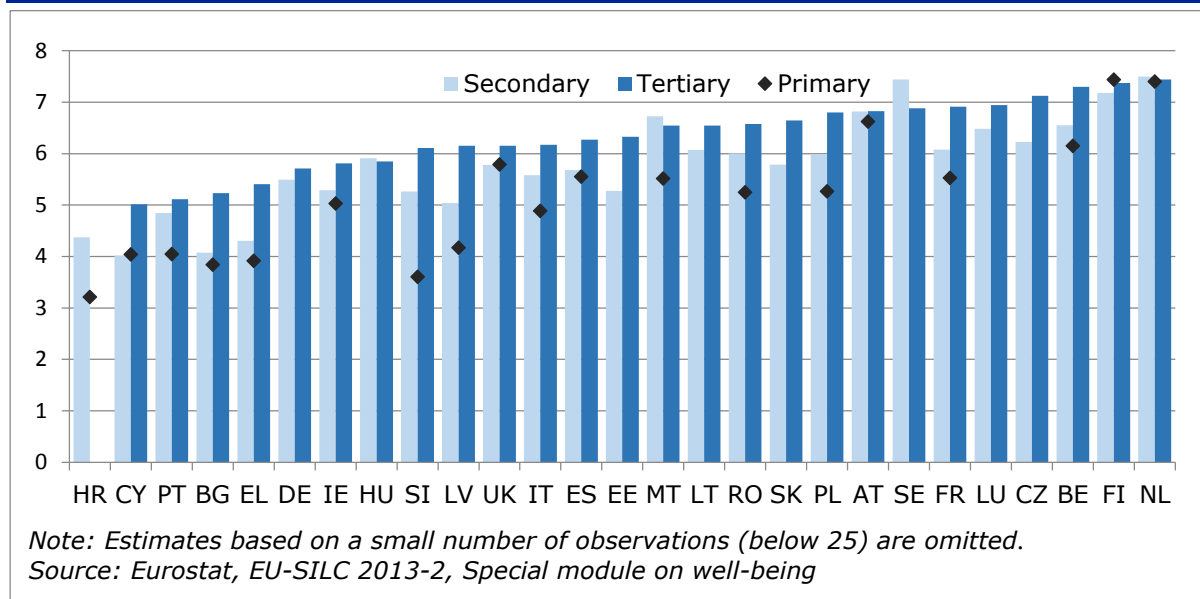
Source: Eurostat, EU-SILC 2013-2, Special module on well-being

Country differences in the well-being of the self-employed

The level of satisfaction reported by the self-employed without employees varies in most countries between those with different levels of education - which can be expected to reflect the types of job that they do and the income from them - but the extent of the variation is much larger in some countries than others. In particular, the difference is especially wide in Bulgaria for both satisfaction with life and job satisfaction (Figures 27 and 28). It is especially small for satisfaction with life in Finland, Sweden and the Netherlands, as well as in Ireland; while for job satisfaction, the level is higher for those with lower education than those with higher levels in Germany and the Netherlands. In the UK, Sweden and Finland, there is little difference between those with different levels of education.

Figure 27: Life satisfaction of self-employed without employees by education level across EU countries**Figure 28: Job satisfaction of the self-employed without employees by education level across EU countries**

There is more variation across education levels in respect to financial satisfaction, with the exception of the Netherlands, Austria and Hungary, where the difference is marginal between those with different levels. Apart from these three countries, there is a common tendency for financial satisfaction to increase as educational attainment levels, and implicitly income, rises (Figure 29). The tendency is particularly marked in many of the EU13 countries, most especially in Bulgaria, Croatia, Latvia, Slovenia, Poland and Romania, though it is also pronounced, if to a slightly lesser extent, in Greece, France, Italy and Belgium.

Figure 29: Financial satisfaction of self-employed without employees by education level across EU countries

Access to social protection

Despite the fact that the self-employed are protected by the legislation and regulations on health and safety in most countries, they generally pay lower social contributions and are less protected by the social security system. The difference in terms of social security protection varies from country to country, leading to what has been termed a 'social gap' (Jorens et al. 2009, European Commission 2010).

In the Netherlands, for example, the self-employed do not have any benefit in the case of sickness or incapacity to work; nor do they have access to unemployment benefits (Table 12). In Belgium as well as France, there is no unemployment insurance scheme for the self-employed. In Spain, in case of unemployment, they are entitled to out-of-work benefit (*Prestación por cese de actividad*), but only if they opted for insurance coverage¹⁷.

In Germany, unemployment insurance for the self-employed is also voluntary - i.e. there is no compulsion on the people concerned to have the protection that this provides. However, if the self-employed do not have sufficient income or disposable assets, they are, in principle, entitled to the standard allowance provided to jobseekers (*Arbeitslosengeld II*) to ensure that they have enough for subsistence at least.

In the UK, as well as having no protection in the event of accidents at work or occupational diseases – which is also the same in the Czech Republic – the self-employed are not entitled to a state earnings-related pension and have no access to unemployment benefits, though, as in Germany, if they become unemployed, they can claim means-tested assistance.

In Poland, the self-employed pay only a minimum level of social contributions and so are entitled only to a minimum retirement pension. In a number of other countries, many of the self-employed opt to make lower contributions and, therefore, also have lower levels of entitlement to benefits.

In addition, many of the 'bogus' self-employed are likely to opt not to join social insurance schemes if they are voluntary in order to avoid paying the social contributions that are required.

¹⁷ Note that all the information in this section comes from MISSOC and relates to the situation as at 1 July, 2015. (<http://ec.europa.eu/social/main.jsp?catId=815&langId=en>)

Table 12 – Entitlement of self-employed to social benefits, July 2015

	Self-employed (as % of employed, 2014)	Unemployment benefits	Sickness benefits	Old-age pensions
EL	31.2	yes	no	yes
IT	23.1	no	no	yes
RO	20.6	voluntary	yes	yes
PL	18.2	yes	voluntary	yes
PT	18.0	yes	yes	yes
CZ	17.5	yes	voluntary	yes
ES	17.3	voluntary	yes	yes
IE	16.4	no	no	yes
CY	15.9	no	yes	yes
NL	15.9	no	no	yes
SK	15.3	yes	yes	yes
UK	14.9	no	yes	yes (contributory basic retirement pension only)
HR	14.0	yes	yes	yes
MT	13.8	no	yes	yes
BE	13.6	no	yes	yes
FI	12.7	voluntary	yes	yes
SI	12.6	yes	yes	yes
BG	12.1	no	voluntary	yes
AT	11.4	voluntary	yes	yes
FR	11.1	no	yes	yes
LT	10.8	no	voluntary	yes (if income declared as wages)
LV	10.7	voluntary	yes	yes
HU	10.7	yes	yes	yes
DE	10.5	voluntary	yes (some categories only)	yes
SE	10.2	voluntary	yes	yes
DK	9.0	voluntary	yes	yes
EE	8.9	no	yes	yes
LU	8.0	yes	yes	yes

Source: Eurostat, LFS for self-employed as a % of total in employment and MISSOC database (version 1 July, 2015) for entitlement to social benefits.

Policies to promote entrepreneurship

Promoting entrepreneurship is an important element of the Europe 2020 strategy, in which it is regarded as a key component of smart, sustainable and inclusive growth. Educational and training programmes together with support measures to increase the number of entrepreneurs and to improve their performance are seen as having significant payoffs in terms of economic growth and job creation (Goetz et al. 2012). To encourage more people to set up businesses and to assist the development of existing businesses, the Entrepreneurship 2020 Action Plan in 2012 proposed expanding education and training for entrepreneurs, reducing administrative barriers to setting up in business and providing

support at key phases for the development of businesses, as well as 'reigniting the culture of entrepreneurship' in Europe¹⁸.

Potential of the self-employed to hire employees

Henley (2005) examined the factors that enable the self-employed to create SMEs which in turn create jobs. Using data collected from the British Household Panel Survey from 1991 to 1999, he found a strong correlation between housing wealth and employment generation (houses are often used as collateral to secure business financing). In addition, the results indicated that entrepreneurs with a self-employed parent were more likely to employ others in their business. Equally, the higher the level of education, the more likely the self-employed were to employ others.

Recent research also shows that internationally-active SMEs are more innovative and report higher employment growth. They also tend to lay off fewer employees during a crisis period (De Kok et al. 2011). Young SMEs in particular are net job creators throughout the business cycle, but the extent of job growth depends on national policies in place (Criscuolo et al. 2014). Net employment growth is mainly generated by a small number of young, high-growth firms, the so-called gazelles (Henrekson and Johansson 2010). On the other hand, the new entrepreneurs (Independent Professionals –IPROs) tend to work for themselves and often do not wish to employ other people (Leighton 2015).

Determinants to become self-employed

Fritsch et al. (2015) found that the main factors driving the marked growth of self-employment in Germany in the first two decades following unification were demographic developments, the shift towards service sector employment and a larger proportion of the population with tertiary education. Education has generally been found to play a major role (e.g. Dawson, et al. 2009 and Remeikienė, Startienė and Stundžienė 2014), in part because those with high education are more likely to be pulled into self-employment, while those with a lower level tend to be pushed (Svaleryd 2014).

Wealth (e.g. from inherited or accumulated assets) (Remeikienė, Startienė and Stundžienė 2014; Popescu 2014) and access to finance are also strong determinants of becoming self-employed. Indeed, the availability of finance generally is a key factor in enabling people to start their own businesses and to develop them. The evidence is that such availability, whether from banks or other financial institutions, whether in the form of loans or venture capital, varies markedly across the EU. In addition, informal factors – such as cultural issues, perceived opportunities to start up a business, and the social image of entrepreneurs – are important, especially during the crisis period (Ferri et al. 2015). Personal reasons, such as the wish for independence, self-fulfilment, freedom to choose the place and time of work, control over working conditions, and an associated higher level of responsibility, are also significant (Bögenhold and Klinglmair 2014; Popescu 2014; Leighton 2015).

Motivations to become self-employed or to start-up businesses for people with disabilities tend to be influenced by both 'pull' factors (such as the wish to be independent or autonomous and the material benefits) and 'push' factors (such as unemployment or employer discrimination) as well as by the wider socio-economic context (Blanck et al. 2000; Boylan and Burchardt 2002). Self-employment can enable those concerned to balance their condition with a working career, in that it potentially gives them more control over their working conditions, the place in which they work and the time when they do so (Pagán 2009; Jones and Latreille 2011; Meager and Higgins 2011).

In the Netherlands, research on the motivation for older people to become self-employed using data from the Interdisciplinary Demographic Institute Work and Retirement Panel Van Solinge (2014) found that this was related to retirees having relatively high levels of wealth and education as well as to people perceiving their retirement to be involuntary. Older people may be drawn to the flexibility of self-employment as a way to make the

¹⁸ http://ec.europa.eu/growth/smes/promoting-entrepreneurship/action-plan/index_en.htm

transition from their working career into retirement or as a way to maintain social networks (OECD/ European Commission 2012). On the other hand, some of them may start a business because they have insufficient retirement savings or they face increasing financial pressure (Malek et al. 2011).

Studies shows that self-employment tends to lead to increased job satisfaction (Andersson 2008; Millán et al. 2013; Leighton 2015), despite the loss of job security (Millán et al. 2013) and the greater risk of mental health problems (Andersson 2008).

Barriers to self-employment

Reconciling self-employment with private (family) life is not always easy. Research in Sweden (Johansson Sevä and Öun, 2015) found that both self-employed men and women, especially those with employees, generally experience more work-family conflict than employees. In Germany too, self-employment leads to a higher level of conflict of this kind, possibly because of higher expectations regarding availability (König and Cesinger 2015). Women, in particular, are more likely than men to report that it would be difficult to reconcile business ownership with family commitments (OECD/European Commission 2014).

The gender gap tends to be substantial when it comes to individual preferences and attempts to start up an entrepreneurial activity. Studies (e.g. Afandi and Kermani, 2014) have found that for Europe, differences in both individual and national characteristics largely favour men, the former playing a larger role in explaining the gender gap. In Norway (Rønsen, 2015), it seems that there are several factors explaining the relatively small number of women entrepreneurs, including psychological and motivational, gender traditional choices of fields of education, a gender-segregated labour market, the social contexts and social networks and the differential ability of women to attract capital. The main barriers, however, appear to be a lack of entrepreneurial culture, role models and the know-how to set up a business. A study in Greece (Tsoukatos 2014) confirms that the propensity to become an entrepreneur is culturally influenced.

Another barrier to setting up a business is the complexity of the administrative process (Flash Eurobarometer 354, 2012), as well as the degree of openness of the economy (i.e. exposure to foreign competition) (Congregado et al., 2014a).

Policies for inclusive entrepreneurship

Supporting entrepreneurship is a potential means of tackling labour market disadvantage and social exclusion more generally (De Clercq and Honig 2011), although reliance on this has been argued as being unrealistic for some groups (Kitching 2006; Blackburn and Ram 2006).

In the UK, the government has promoted self-employment as an option to job-seekers, and up to June 2014 46,000 businesses had been set up through the New Enterprise Allowance¹⁹. This includes people with disabilities seeking a better balance between their limitations and the pursuit of a working career (Pagán 2009; Kitching 2014).

Caliendo et al. (2015) show that subsidies for the unemployed to set up a business are important to encourage people to face the risks of taking this step and to help them make a success of the venture. However, policies that actively promote self-employment need also to target these people who are suited to working independently for themselves and to avoid encouraging those not suited – i.e. those who would otherwise not choose to set up a business - to take this step (Halabisky 2015). A setback from a failed business could exacerbate an already precarious financial situation (Cahill and Quinn 2014). Moreover, losing self-employment is often an even more harmful life event than losing dependent employment (Hetschko 2014).

Those disadvantaged in the labour market or underrepresented among entrepreneurs tend to be disproportionately affected by difficulties in accessing finance for business start-ups.

¹⁹ <https://www.gov.uk/government/news/budding-entrepreneurs-helped-off-benefits>

Low-educated and young people, in particular, are especially likely to regard financing problems as a major constraint to starting a business. Women and young entrepreneurs, accordingly, have to rely more than others on the support of family, friends and public authorities in doing so, while the low-educated are relatively unlikely to receive public financing (Marchese 2014). It needs to be recognised, however, that these different groups are very heterogeneous and vary in terms of the main obstacles that they face and consequently require different forms of support.

Inclusive policy measures to support self-employment should therefore focus on improving access to finance, though other aspects should not be neglected such as enterprise awareness and financial know-how (Bennett 2012), as well as business development services (OECD/European Commission 2014) and the development of entrepreneurial networks (OECD/European Commission 2015). Financial support can take the form of grants, subsidised loans or loan guarantees, tax credits, and exemption from business registration fees (e.g. Greve 2009), as well as the provision of microcredit (e.g. Halabisky 2015), peer-to-peer lending and business angel investment (Marchese 2014).

Most research suggests that intensive, tailored, one-to-one or small group support provision tends to produce the most successful outcomes (Arnold and Ipsen 2005; EMDA 2009; Dotson et al. 2013), though traditional business management training is also important (Congregado et al. 2014b; Moulton and Scott 2014; Halabisky 2015). Support including guidance and counselling needs to be sustained well beyond the start-up phase to foster sustainability. Any relationship established with a mentor should however be limited to one or two years in order to avoid dependence (Halabisky 2015). In addition, coaches and mentors should be aware of the issues and challenges faced by disadvantaged entrepreneurs and should develop their communication skills in this regard (OECD/European Commission 2015). Role models from 'disadvantaged' social groups (e.g. women, migrants, people with disabilities, etc.) are also important to encourage potential entrepreneurs from these groups to start up a business (OECD/European Commission 2015).

In addition, there remains a need to reduce the complexity of business registration and administrative requirements for small firms, to improve the recognition of qualifications of migrants and to provide welfare bridges, or a redesign of social security systems, to ensure that entitlements to benefits are not lost (Halabisky 2015).

Expenditure on start-up subsidies seems to reduce the risk of business failure, especially for those becoming self-employed from being unemployed (Congregado et al., 2012, Caliendo et al. 2015). The availability of such incentives can be seen, therefore, as a way not only of reducing unemployment but also as a means of equalising business survival chances between people in different starting situations. In Germany, research indicates that those who have benefited most from the start-up subsidies for the unemployed are the low-educated, women generally and people from disadvantaged regions (Künn, 2015). However, as might be expected, the evidence suggests that the effectiveness of such programmes is very much influenced by the prevailing economic conditions when the business is created (Caliendo and Künn 2013). In Spain for instance, there is a programme that gives the unemployed people the opportunity to receive their unemployment benefits in a lump-sum payment in order to set up a business: but an evaluation has found that it has had only a small impact on business creation because it has failed to offset the other factors that discourage this (Mayor et al. 2015).

Concluding remarks

The above analysis has shown that the number of self-employed has increased in most EU Member States since the onset of the economic financial crisis in 2008 while the number of employees has declined. The increase has been among those without employees rather than among those with employees who might loosely be termed entrepreneurs and this has been common to both men and women. It contrasts with the years before the crisis when employment of entrepreneurs rose by more than the number of self-employed without employees.

A significant part of the growth in self-employment over the crisis period, however, was in part-time working. This increased in all but 5 Member States and among men as much as among women. The growth was especially marked among those without employees, though it also occurred among those with employees and in both cases by more than among employees. Adjusted for hours worked, therefore, there has been a decline in self-employment over the crisis period, among both those without employees and those with, and the decline is on a similar scale to that for employees.

The relative increase in self-employment, moreover, is largely attributable to the ageing of the work force, namely to the growing share of employment accounted for by older age groups, in which the self-employed make up a relatively large share. Across the EU as a whole, the share of the self-employed among those aged 25-34 and 50 and over in employment declined over the period, while there was only a marginal increase in their share of those aged 35-49. Without the shift in employment towards older age groups, therefore, the overall share of employment accounted for by the self-employed would not have remained unchanged.

When explicit account is taken of hours worked and age, the shift to self-employment over the crisis period is no longer evident in most countries. The main exceptions are the Netherlands, the UK and Slovakia, where there was a significant increase in the number of self-employed without employees even after adjusting for age and for more people working part-time.

The increase in the number of young self-employed over the crisis period has tended to be more among those with tertiary education than those with lower levels of education, so there is little indication of young people who may be unsuited to working as independents being persuaded to start a new business. Nevertheless, it remains the case that the proportion of self-employed without employees with only basic schooling is larger than among employees in many of the lower-income countries, such as Romania and Greece especially but also in Croatia, Latvia and Lithuania. The same is true, however, in Finland, Sweden, the UK and Ireland.

In many of the lower-income Member States too, a disproportional number of the self-employed without employees work in agriculture or elementary occupations. This is particularly true in Romania and Croatia, though also in Bulgaria, Latvia, Lithuania, Greece and Portugal, as well as in Ireland and Austria among higher-income countries. In most countries, however, the proportion employed in such occupations declined over the crisis period – Greece, Italy, Cyprus and Hungary, all countries hit especially hard by the crisis, are exceptions – while the proportion employed in higher-level occupations, as managers and professionals, increased. The evidence suggests, therefore, that those becoming self-employed have in most countries gone disproportionately into higher-level activities rather than elementary ones, though this is not universally the case.

The evidence also suggests that there has been no increase in the relative number of the unemployed becoming self-employed over the crisis period, nor have more of those moving from unemployment into work taken up self-employment. Indeed, the reverse seems to have been the case, despite the policies in place in some countries to encourage the unemployed to start up their own businesses.

The evidence suggests, as well, that there is very little tendency for the self-employed without employees to take on workers, i.e. to shift from being an independent trader to being an enterprise with potential growth prospects. This was the case both before and after the crisis, though the relative number doing so declined over the crisis period.

In most EU countries, there are more people with income below the median among the self-employed without employees than among employees. Moreover, a larger proportion of the self-employed (compared with employees) have income below 60% of the median. The relative number of the self-employed with income both below the median and below 60% of the median has risen over the crisis period.

At the same time, however, there is a question-mark over the reliability of the income measure used as a measure of purchasing power in the case of the self-employed in many countries. Since the rate of material deprivation among the self-employed with low income

is lower than among employees, this suggests that their living standards are, on average, higher. It also raises a question, which requires more analysis, as to whether their living standards have declined by more than those of employees since the crisis began.

A recent survey (conducted as part of the EU-SILC survey of 2013) indicates that the self-employed without employees in the EU are slightly less satisfied with their life, their job and financial situation than employees, while they also reported being less happy and calm and more prone to being down and depressed. This seems to be particularly true of the less well-educated, who in many cases are in lower-quality jobs and have lower income than those with higher education levels. The level of satisfaction of the self-employed with the various aspects of their life, therefore, tends to increase with their education level, and level of income, as it does among employees, though for the self-employed without employees the extent of variation is larger. This is common across most EU countries, though in the Nordic countries, in particular, the variation in satisfaction is minimal and is relatively high for all groups.

In many countries in the EU, the self-employed have less favourable access to social protection than employees should their businesses fail or they become unable to work, either because they are not entitled to unemployment benefit or sickness benefit or because access is voluntary and they choose not to pay contributions. The latter is a particular tendency among independent traders, as well as among the so-called bogus self-employed, who seek to minimise the charges they need to pay. Even when they do opt to pay contributions, these are often lower than they should be and, accordingly, the benefits they receive are equally low.

Incentives to start-up businesses exist in most countries, though their effects are mixed. Research seems to suggest that access to finance and a lack of business know-how are the main barriers to start-up businesses, especially among disadvantaged groups. Grants, subsidised loans, loan guarantees, microfinance and so on combined with the provision of advice and guidance are, therefore, a means not only of stimulating start-ups but also of evening up business survival chances among those from different social backgrounds and with different levels of wealth, though survival chances generally have inevitably been smaller during the crisis.

Although there is some evidence available on the effects of policies to encourage self-employment and people to set up businesses, there remains a need *'to increase the use of robust evaluations to measure the impact of inclusive entrepreneurship schemes to build an evidence-base that can inform policy development.'* (OECD/European Commission, 2015).

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Annex

Figure A.1 Proportion of employees and self-employed without employees with only basic schooling in the 18-34 age group, 2014

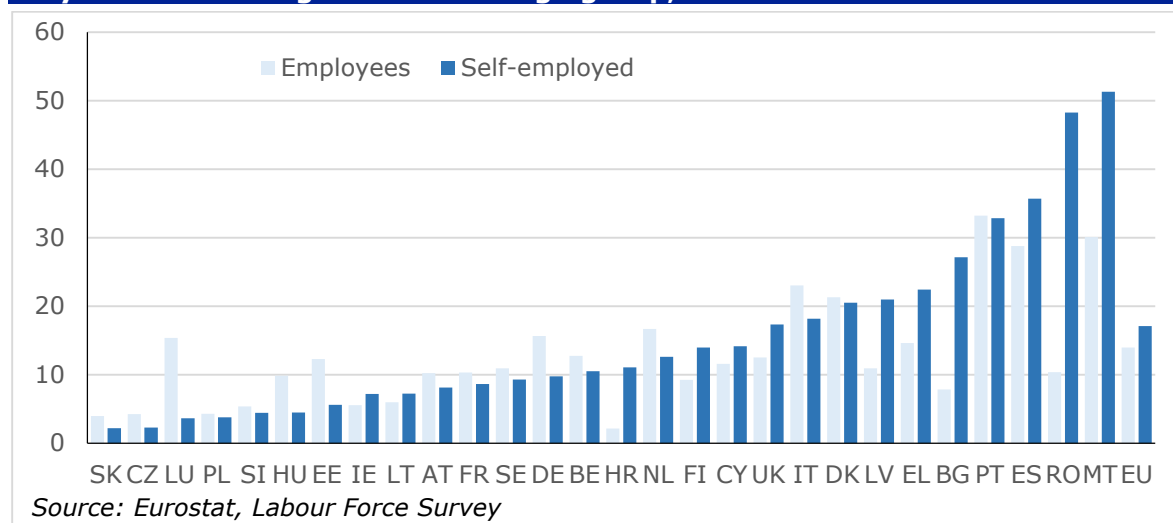


Table A.1 Self-employed without employees by occupation, 2014 and change 2007-2014

ISCO	% total in 2014				Change 2007-14			
	1-3	5	7-8	6+9	1-3	5	7-8	6+9
BE	56.2	15.9	16.8	10.0	1.7	-1.8	0.6	-0.4
BG	21.5	22.1	16.8	38.7	12.2	-3.6	0.1	-8.8
CZ	32.9	20.2	37.6	5.4	-6.3	6.0	-1.1	0.0
DK	49.5	14.6	18.5	16.0	3.5	-0.4	-2.2	-0.8
DE	60.8	14.7	14.0	7.5	3.5	-2.3	1.1	-0.9
EE	46.8	16.2	21.9	12.9	25.7	6.6	-24.9	-8.0
IE	33.6	7.9	27.7	29.4	8.0	0.5	-3.5	-5.0
EL	24.5	19.2	17.8	37.5	-0.5	-2.5	-3.7	6.7
ES	31.2	30.2	24.0	13.1	5.0	2.7	-4.7	-1.9
FR	39.6	18.6	21.3	20.4	0.9	2.0	-0.7	-2.2
HR	14.6	9.4	18.6	56.1	2.4	-2.2	5.1	-5.2
IT	47.6	18.1	20.7	11.3	1.9	0.2	-2.2	0.7
CY	33.4	21.2	24.3	19.4	11.5	-6.5	-6.6	1.2
LV	28.9	14.0	20.6	35.6	6.9	2.7	0.9	-10.6
LT	14.2	23.5	19.3	42.4	4.9	7.4	0.1	-12.8
LU	68.9	13.6	3.2	13.1	5.9	3.1	0.9	-9.4
HU	30.8	22.3	27.3	18.0	-0.3	-3.2	-1.6	4.9
MT	25.6	30.3	33.2	9.8	8.6	2.4	-7.7	-1.8
NL	54.3	16.4	16.3	10.4	1.3	-0.4	-0.8	-0.9
AT	43.8	12.2	10.7	32.3	6.0	-1.3	1.9	-6.6
PL	20.5	10.9	15.7	51.9	6.9	-0.5	1.6	-8.3
PT	32.2	16.4	17.9	32.9	5.1	2.6	-4.7	-3.0
RO	3.2	4.2	12.7	79.9	0.4	0.4	0.7	-1.5
SI	40.9	8.5	18.8	30.2	16.1	1.1	-7.3	-10.7
SK	30.2	19.5	42.0	6.6	0.8	6.5	-8.4	0.9
FI	32.3	16.9	24.9	25.0	1.2	1.1	2.2	-5.2
SE	49.1	13.8	25.0	10.8	4.1	-2.0	0.2	-2.2
UK	41.4	13.0	30.2	12.9	2.5	0.6	-2.3	0.0
EU	37.5	16.3	21.3	23.2	3.1	0.3	-1.0	-2.0

Note: Because of the change in ISCO classification in 2011, the figures before this year cannot be compared with the figures after. The change 2007-2014 is therefore computed as the change 2007-2010 plus the change 2011-2014.

The ISCO codes are: 1-3: Managers, professionals, associate professionals and technicians; 5: Sales and service workers; 7-8: Skilled and semi-skilled manual workers; 6+9: Agricultural and elementary workers

Source: Eurostat: Labour Force Survey

