

flexibility@work

self-employment across
countries in the Great
Recession of 2008-2014



2015

yearly report on flexible labor
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flexibility@work 2015

self-employment across countries in
the Great Recession of 2008-2014
David G. Blanchflower



Dartmouth

yearly report on flexible labor and employment

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acknowledgements

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preface

Randstad is pleased to present the third edition of Flexibility@work: an annual report on flexible labor and employment. The Flexibility@work report provides a comprehensive overview of international employment trends in the flexible labor market. Additionally, we zoom in on a specific development in the world of work. The 2015 edition will focus on the development of self-employment during the Great Recession of 2008-2014.

The study on self-employment - conducted by David G. Blanchflower of Dartmouth College - shows that a higher self-employment rate was not conducive to grow out of the Great Recession. The study also reveals that the self-employed are either pushed or pulled into working for themselves. Frequently, the pull self-employed are job-makers and their number is more likely to increase when unemployment is low. Push self-employment is more likely to occur due to lack of alternatives when unemployment is high. With the Great Recession hitting self-employed earnings especially hard, it comes as no surprise that self-employment earnings were down more than 20% since the onset of recession.

Self-employment does provide a useful alternative for companies and individuals. For companies it provides flexibility, while it means independence for individuals. For the more entrepreneurial it may be the start of their road to riches and create more jobs. The concern for many workers is that it is an insecure road without much perspective. The self-employed don't have an employee benefits package, which in many countries means they have to provide their own health insurance and retirement plan. Taking a vacation or even a day off is also not without its consequences, as it means losing out on potential income.

A healthy labor market needs different types of flexible employment to thrive. Governments should be encouraged to create a mature system of social protection that not only supports workers who are ill or temporarily out of work, but also stimulates a modern, accessible, well-regulated market. Not only for the self-employed but also for other flexible labor arrangements that provide essential transitions into the labor market, such as temporary employment and agency work.

Clearly labor market policy needs to be approached more actively with increased tactical interventions by those operating in the market. In order for businesses, and indeed economies, to remain innovative and competitive in today's environment, diversity & flexibility – and therefore flexible labor – is imperative. In my view, the whole debate about whether or not we want to allow flexible labor and temporary work is misplaced. Rather, the discussion should center on how it can be regulated best to create a win-win situation for both businesses and workers.

With our mission of 'shaping the world of work', Randstad understands the importance of having a thorough knowledge of all the current and future labor markets in which we provide our HR services with a growing number of delivery models. A flexible workforce has proven to increase productivity and improve competitiveness. Complementary to our existing knowledge of local markets, this annual publication is therefore a welcome addition to Randstad's knowledge base.

Jacques van den Broek



CEO Randstad Holding NV

part I

self-employment across countries in the Great Recession of 2008-2014



table of contents part I

article: self-employment across countries in the Great Recession of 2008-2014

	introduction	11
1	the impact of the Great Recession, 2008-2014	14
2	analysis of the probability of being self-employed – the UK, US and Europe	28
3	happiness, well-being and job satisfaction of the self-employed	38
4	liquidity constraints and financing of SMEs and Entrepreneurs	44
5	self-employment incomes	56
6	summary	72
7	conclusions	74
	appendix – definitions of self-employment and tables	80



self-employment across countries in the Great Recession of 2008-2014

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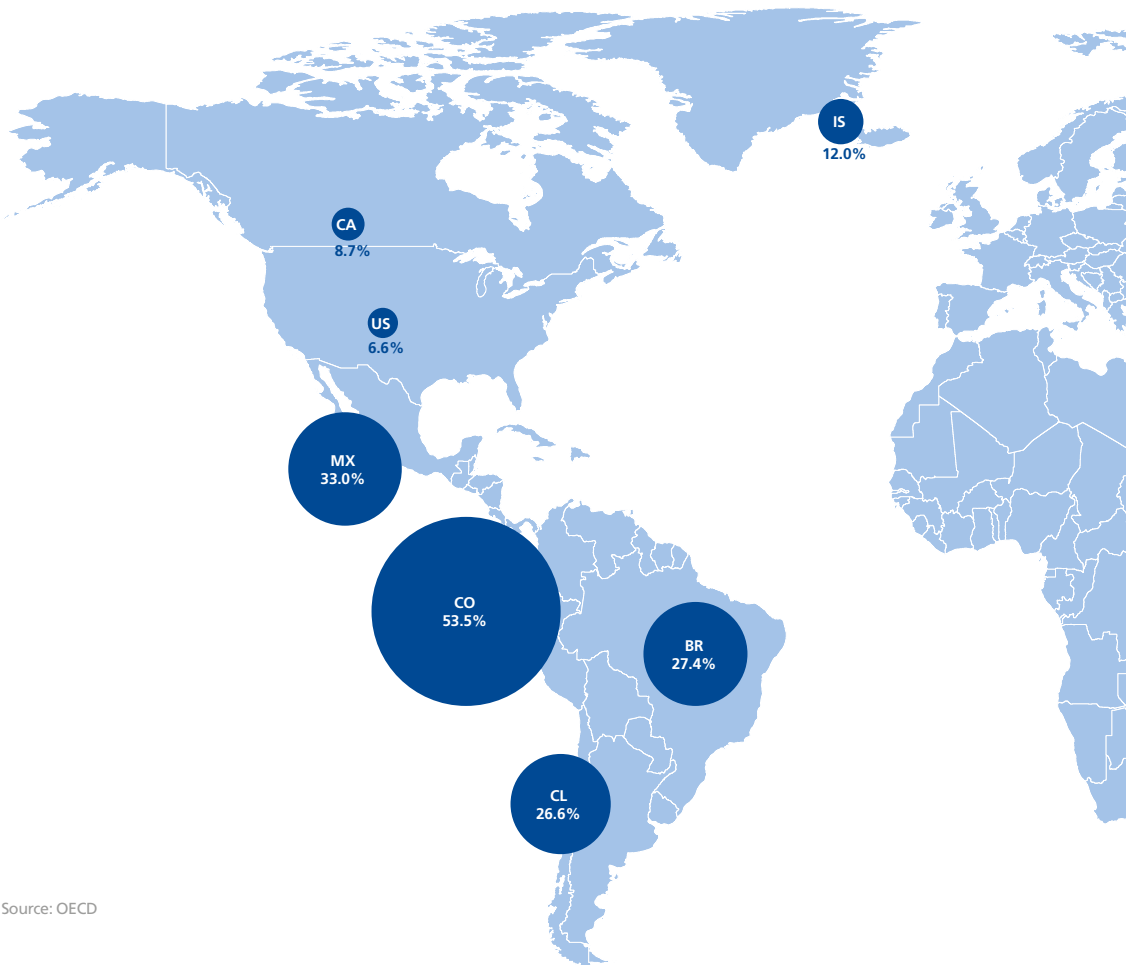
introduction

The self-employed are different, they created a job for themselves. In several earlier papers I examined various aspects of self-employment (Blanchflower, (2000; 2004, 2009); Blanchflower, Levine and Zimmerman (2003), Blanchflower and Oswald (1998); Blanchflower, Oswald and Stutzer (2001) and Blanchflower and Shadforth (2007)). These include examining who the self-employed are in terms of their demographics; their well-being; the time series movements of the self-employment rate and its correlates; and the importance of liquidity constraints. It is now time to update this evidence given that we have just been through the Great Recession, since 2008 and at the time of writing (December 2014), recovery remains slow in most countries. Are the observed patterns the same as pre-recession? How have the self-employed coped in a tough economic environment, especially in Europe where unemployment has risen sharply? Which countries have seen falls in the self-employment rate and which have seen rises? Why have changes in self-employment rates since 2008 been so different across countries, with some seeing increases (e.g. UK, France and the Netherlands) and others decreases (e.g. Germany and Denmark)? What has the effect been of a lack of availability of credit to SMEs? Is a higher self-employment rate better? These are the issues I address in this paper, mostly for OECD and EU countries¹. However, I am able to extend the picture to include a number of non-OECD countries that are less developed and have high rates of self-employment.

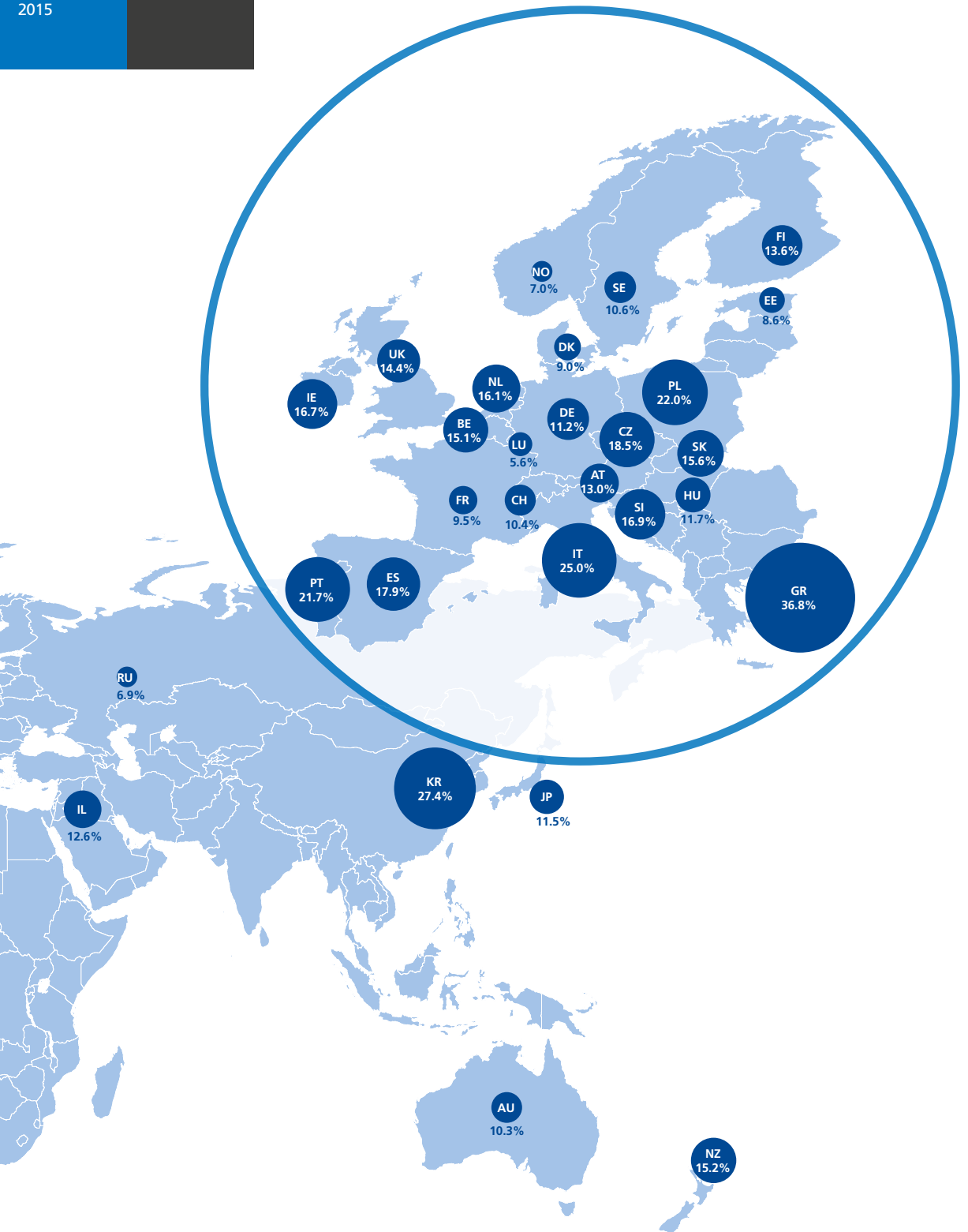
First, I turn to an examination of what has happened to self-employment rates. It appears that the self-employed have taken most of the strain of a fall in output via falls in their revenues. There is some evidence that the self-employed are under-employed now known as the self-underemployed.

¹ There are eight EU countries who are not members of the OECD, i.e. Bulgaria; Czech Republic; Croatia; Cyprus; Latvia; Lithuania; Malta and Romania

Self-employment rates 2013 in OECD countries



Source: OECD



1. the impact of the Great Recession, 2008-2014

Overall the unemployment rate in the EU and the Eurozone are all in double digits (10.0% and 11.5% respectively) in October 2014. Unemployment rates are especially high in Greece (25.9%); Spain (24.0%); Portugal (13.4%) and Italy (13.2%). A half of the youth (under 25s) labor force in Spain (53.8%) and Greece (49.8%) is unemployed; while 43.3% are unemployed in Italy and average 23.5% in the Euro Area². Of interest is the fact that there are marked differences by gender with approximately half of the countries with higher rates for females and half with higher for males³. So we have to have some caution when looking at the labor market by gender, a fact I turn to below.

Table 1 reports annual self-employment rates (SERs) for selected years from 1956 through 2013; there are many gaps prior to 2000 due to lack of data availability⁴. Table 2 provides the most recent quarterly data available through 2014Q2. A couple of things stand out.

1. Self-employment rates for advanced countries have generally fallen since 1956. For example the US has seen a drop from 17.5% in 1956 to 6.6% in 2013. In contrast the UK has seen a rise from 7.7% to 14.4%. Chart 1 plots monthly data for the US and the UK and makes clear the very different trends. Of interest is that the SER in the UK appears to have started declining recently since around May 2014 as the UK economy began to slow. At the same time UK business and consumer confidence surveys, the PMIs plus other macro data such as investment, consumption and net trade also started to turn down⁵.

² <http://ec.europa.eu/eurostat/documents/2995521/6155576/3-28112014-AP-EN.pdf/69c1ee9f-1b1f-4bec-b5cd-5e94eacdbe86>

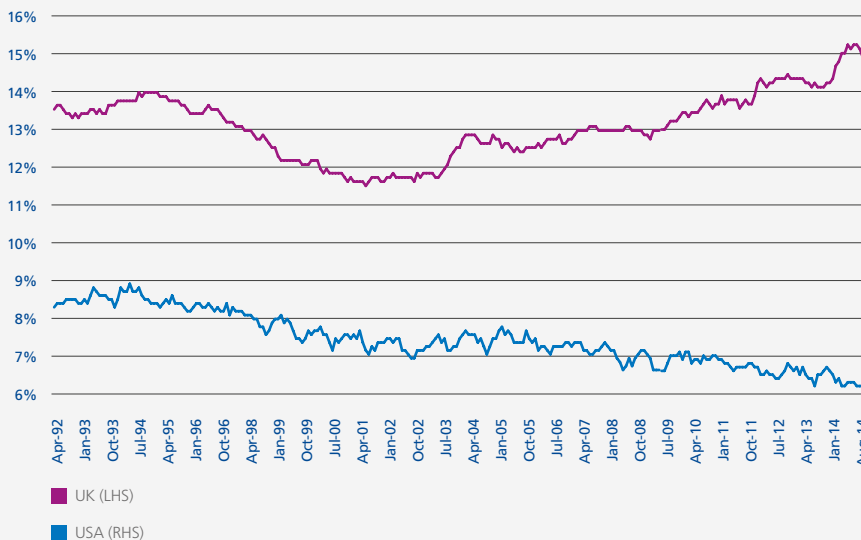
³ In October 2014 female unemployment rates were higher than male unemployment rates in the OECD; the Euro Area 18; the EU28; Australia; Chile; Czech Republic; Croatia; Greece; Hungary; Italy; Luxembourg; Malta; Mexico; Poland; Portugal; Slovenia; Slovak Republic; Spain; Switzerland and Turkey. They are lower in Austria; Belgium; Bulgaria; Canada; Cyprus; Denmark; Estonia; Finland; France; Germany; Iceland; Ireland; Israel; Japan; Korea; Latvia; Lithuania; the Netherlands; New Zealand; Norway; Romania; Sweden; the UK and the United States.

⁴ Definitions of who is considered to be self-employed by Eurostat and the OECD is provided in the appendix. In the US this is equivalent to unincorporated self-employed. Data is also now provided for incorporated self-employed that I examine below.

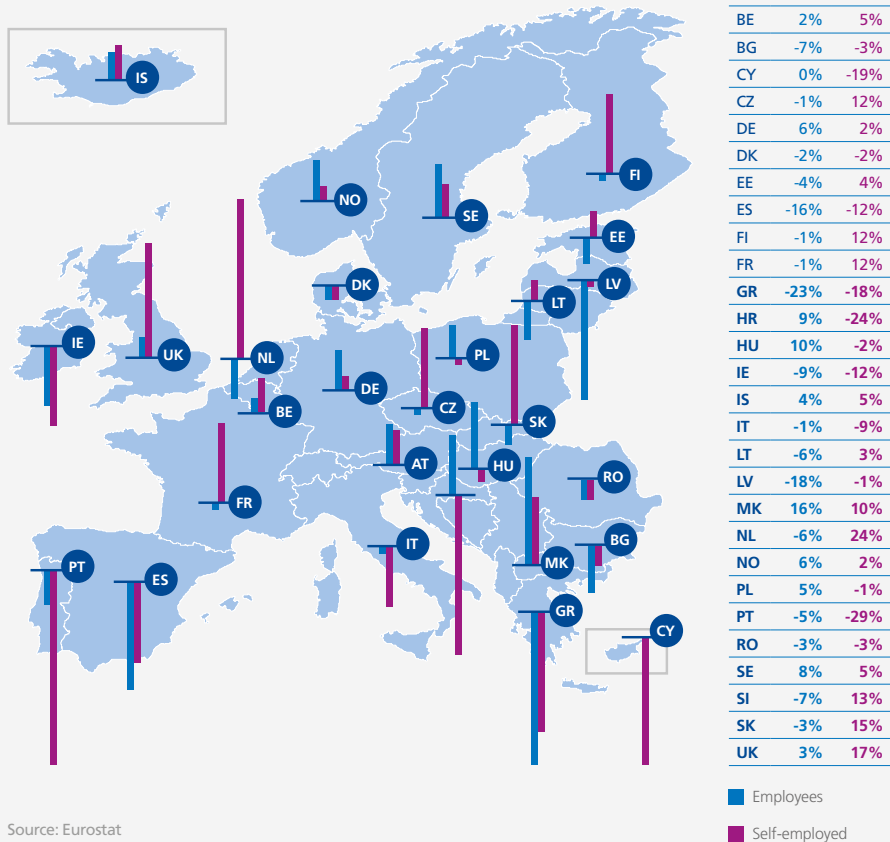
⁵ http://ec.europa.eu/economy_finance/db_indicators/surveys/time_series/index_en.htm

For the majority of countries self-employment rates fell between 2007 and 2013. The main exceptions among the major countries are France (+0.5 percentage points); the UK (+1.1pp) and especially the Netherlands (+3pp). Portugal and Korea had the biggest declines (-2.5pp and -4.4pp respectively). The most recent data shows that between 2008Q1 and 2014Q3 the largest numerical increases in self-employed were in the UK (+647k); France (+312k); and the Netherlands (+257k). Big falls were found in the countries with large increases in unemployment and especially in Italy (-521k); Greece (-230k); Portugal (-340k) and Spain (-411k). The number of unincorporated self-employed in the USA fell by 610,000 and the number of incorporated fell by 384,000. The big question is why did these three countries – France, the Netherlands and the UK – have such a rapid post Great-Recession growth in self-employment and other countries did not? In the UK it occurred at a time when public sector employment was falling and so workers fired from the NHS were rehired back as consultants. The evidence especially from the Netherlands and the UK is that the majority of the growth came among the most highly educated groups.

Chart 1. UK and US (unincorporated) self-employment rates



Growth employees and self-employed (2008Q1-2014Q3)



2. As shown in Table 3a, based on the latest data for 2014Q3, the number of self-employed workers in the EU is still 150,000 below its level at the beginning of the recession, which I shall assume for simplicity was 2008Q1 – 33,278,000 in 2008Q1 vs 33,126,000). In the Eurozone the numbers are down by 725,000. Self-employment rates in the EU28 were 15.1% at both the beginning and end of the period, while in the Eurozone they fell slightly from 15.1% to 14.9%. There is a considerable variety in the changes observed across countries. Self-employment numbers are down markedly, as one would expect in countries which have seen big rises in unemployment, especially Greece, Spain Portugal, Ireland, France and Italy.

Self-employed numbers are down more than the number of employees in Italy (-496k and -123k respectively) and Portugal (-352k and -195k respectively). As a proportion the decline was more marked among the self-employed than employees in Greece (23% vs 18%) and Spain (-16% and -12%). In France the number of self-employed rose by 309,000 compared to a fall of 121,000 in the number of employees. Self-employment in Germany grew by 2% compared with 6% among employees. The UK saw the numbers of self-employed rise by 17% compared with a rise of 3% in the number of employees. In the Netherlands self-employment rose by 24% while the number of employees fell by 6%. So self-employment is up more than the number of employees in high GDP countries (France, UK and Netherlands). In the EU countries with high levels of unemployment (e.g. Ireland, Italy, Portugal and Spain) both the number of employees and the self-employed are down. In Croatia and Hungary the number of self-employed has fallen as in percentage terms while the number of employees has risen.

Table 3b reports agricultural self-employment rates (ASERs) in the twenty eight EU countries plus Iceland, Macedonia; Norway, Turkey and Switzerland over the Great Recession years of 2008-2014. They are very high, averaging over 50% for the EU28 and the Eurozone 18 (EZ18). Rates are especially high in Ireland, Portugal and Greece, where around three in four agricultural workers are self-employed. ASERs have changed very little over these years in any country. The proportion of workers in agriculture changed little over the Great Recession. It is true of course, that countries with the highest proportion of workers in agriculture tend to have the highest overall self-employment rates. For example Greece has 13.7% of workers in agriculture while Portugal has 10.2% compared with 3.0% in France; 1.4% in Germany and 1.0% in the UK.

Table 3c reports SERs for construction, the other major sector where self-employment rates are high. This sector was hit especially hard in the Great Recession in a number of countries, but especially those that had house price collapses such as Spain, Ireland the UK and the USA. SERs in construction are above 40% in the UK and Italy; in the UK they have risen sharply from 35% in 2008 to 40% in 2014, likely explained by favorable movements in the tax code. A similar story is found in Ireland where they rose from 29% to 37%. In Greece the rise was from 29% to 39%. In 2014Q3 in Spain there were 200,000 fewer self-employed construction workers than there were in 2008Q1. The other major countries with a decline, in order, were Italy (-74k); Portugal (-59k) Greece (-56k) Ireland (-35k) and the UK (-20k).

Table 3d reports non-agricultural rates, which mostly fell over the years 2008-2014; they average around 13% currently and are especially low in several Scandinavian countries including Norway and Sweden. The main exceptions are Belgium, the Netherlands and the UK, although most recently the number of self-employed in both have started to fall.

Table 4 allows us to identify why the self-employment rate has changed; in part because such changes can come from movements in both the numerator and the denominator, while at the same time the population could have changed. The table reports on the numbers of self-employed and employed in 2008Q1, the start of the Great Recession, versus the latest data I have in 2014Q2, with the numbers in 2008Q1 set to 100. I also report changes in the employment rate, which is the number of employed, divided by the 15+ population, which in a number of countries has changed markedly. The final two columns report the changes in the denominator – the size of the 15+ population and that of working age 15-64. The number of self-employed fell in fourteen countries and especially so in Portugal, where it was down 26%. Even though the numbers in employment rose in seventeen of the thirty three countries in Table 3 in only thirteen was the employment rate at the end of the period above that at the beginning. This was down to the rise in the size of the population, and especially of the working age population. Of note is the marked decline in the working age population in most of the former Soviet Republics or A10 Accession Countries of Bulgaria; Estonia; Hungary; Latvia; Lithuania and Romania. This will likely impact migration flows to Western countries, with aging populations in the future.

Table 5 provides the latest information on self-employment rates in non-OECD countries provided by the World Bank in its 2013 World Development Report - Jobs. Data are provided, when available for 1995, 2005 and 2010; most countries do not have all three years and in a number of cases the variation across years seems implausible. For example Nigeria goes from 23% in 1995 to 58% in 2005. The SER averages 22% in both 1995 and 2005 and 21% in 2010. With the caveat that many of these rates may well be unreliable, it appears that self-employment rates in on-OECD countries are higher than in most OECD and EU countries. The main exceptions are Mexico; Chile; Romania; Bulgaria and Greece, the least developed countries.

Table 6 reports on the proportion of employment accounted for by 'own account' workers across 102 countries, including many of the world's poorest, using data from the ILO⁶. To be included there had to be at least two observations over the period 2007-2013, so a number of LDCs were excluded. Of note are a) the relatively high rates in many countries especially among the poorest b) A number of LDCs have very low SERs including Saudi Arabia; Macau (China) and Russia c) SERs fell during the recession years in most countries. Table 7 gives estimates across the same list of countries but this time for 'employers'. The proportions are lower than for employees and have remained roughly constant over the Great Recession.

⁶ See appendix for the United Nations definition of 'own account workers' and 'employers'

Chart 2 plots 2013 self-employment rates and GDP per capita for the 34 OECD countries, which clearly shows a negative correlation ($R^2=.27$). The higher is wealth per head the lower is the self-employment rate. Chart 3 also suggests that the 2013 unemployment rate is positively but weakly correlated with the self-employment rate ($R^2=.13$). Chart 4 plots the relationship between GDP growth and the 2007 self-employment rate from Table 1 across 36 countries. Here GDP growth is measured by the growth in GDP between 2008Q1, the start of the Great Recession and the latest data available for 2014Q3. The data are reported below ranked by starting self-employment rate. The first column is GDP growth and the second the 2007 self-employment rate. Chart 4a plots data for the twelve poorer countries and shows a fairly strong positive relationship. In contrast, Chart 4b shows the reverse, a strong negative relationship, which holds if the outlier observation of Greece is excluded⁷. So there is the exact opposite relationship across poorer and richer countries between starting self-employment rates and subsequent GDP growth. We should be mindful of that in what follows.

Poor countries			Richer countries					
	GDP	SER		GDP	SER	GDP	SER	
Brazil	16.0	30.4	Australia	16.6	11.9	Italy	-8.9	26.4
Chile	22.8	28.1	Austria	3.2	14.4	Japan	-0.1	13.3
Colombia	25.9	46.1	Belgium	3.2	14.8	Luxembourg	8.6	6.0
Estonia	-2.0	9.0	Canada	10.7	9.3	Netherlands	-1.7	13.1
Hungary	-0.3	12.5	Czech Republic	0.9	16.2	New Zealand	8.9	17.1
Israel	21.6	12.7	Denmark	-4.3	9.0	Norway	5.0	8.0
Korea	20.2	31.8	Finland	-6.3	12.6	Portugal	-7.5	24.2
Mexico	12.3	34.3	France	1.8	9.0	Spain	-6.2	17.6
Poland	19.5	23.5	Germany	4.1	12.1	Sweden	4.4	10.6
Russia	7.6	7.3	Greece	-28.8	35.9	Switzerland	8.8	11.5
Slovakia	7.3	12.9	Iceland	-1.9	13.7	UK	3.2	13.3
Slovenia	-5.5	15.9	Ireland	-3.4	16.7	USA	7.9	7.2

Chart 5 suggests there is very little relationship either between the change in GDP and the change from 2007-2013 in self-employment rates, also obtained from Table 1. There is little evidence here that changes in self-employment rates or high self-employment rates in advanced countries prior to the onset of recession had much of any impact on any advanced country's growth rates. This is quite different from the claims made by Shapiro (2014) that 'economies with larger self-employment shares exhibit faster economic recoveries', which doesn't seem to be the case in the recent data. Canada and Australia are perfect counter examples. There is some evidence though that claim may true in developing countries such as Colombia.

⁷ In that case the best fit trend line is $14.3506 - .4474GDP$ and $R^2=.3506$

Chart 2. OECD self-employment rate (%) and GDP/capita (\$US 2005)

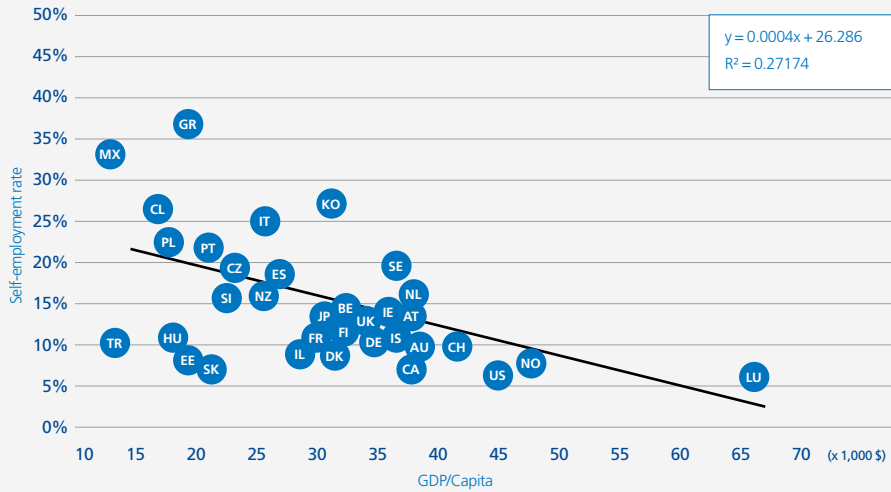


Chart 3. OECD Self-employment and unemployment rates 2013 (%)

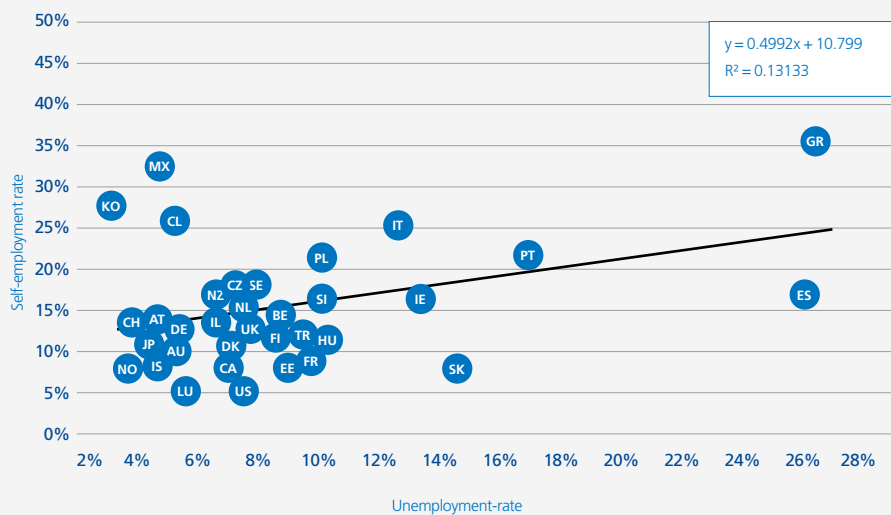


Chart 4a. Self-employment rate 2007 and GDP growth 2008q1-2014q3 (poor countries)

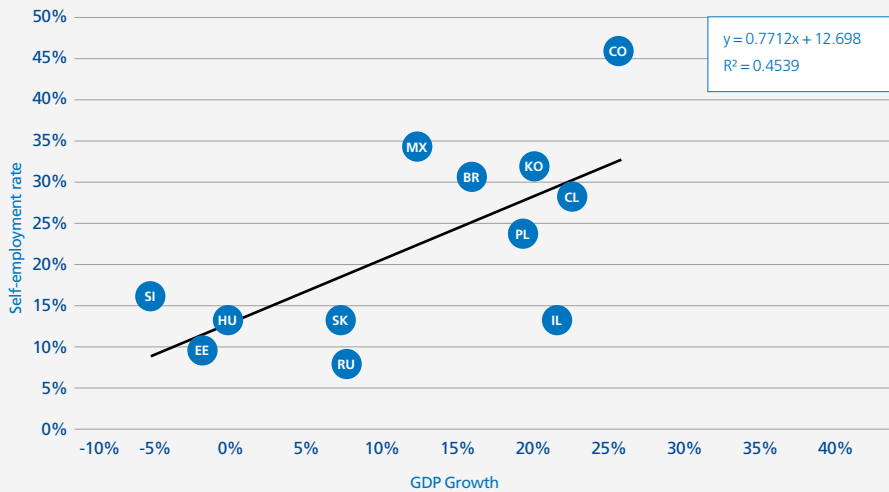


Chart 4b. Self-employment rate 2007 and GDP growth 2008q1-2014q3 (richer countries)

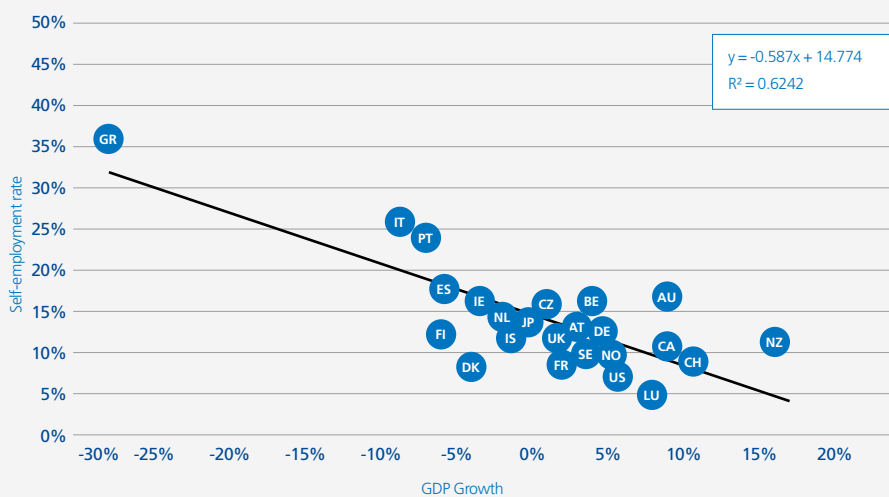
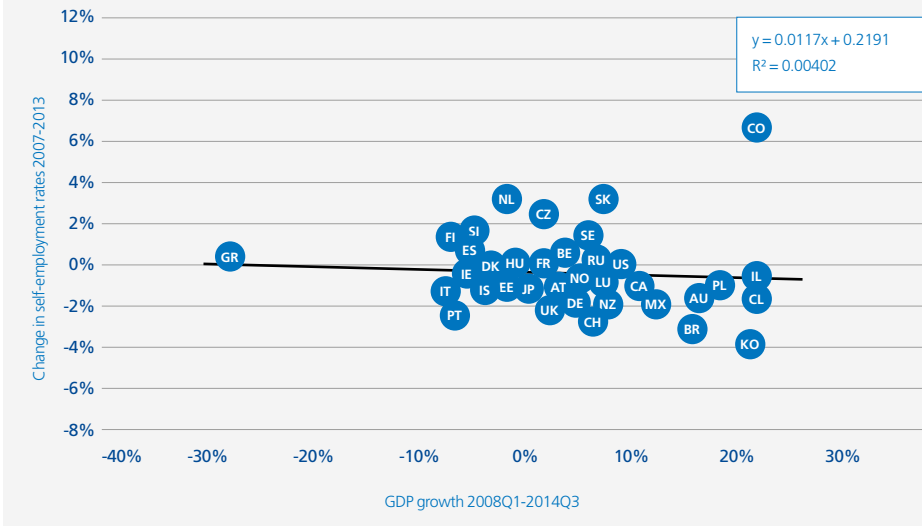


Chart 5. 2007-2013 Change in Self-employment rates and GDP growth 2008Q1-2014Q3



Less-developed non-European countries like Brazil; Chile; Columbia; Mexico and Korea with high self-employment rates had high growth rates. Greece had an especially high starting self-employment rate in 2008Q1 of 36% and experienced a dramatic fall in output of 29%. Countries with relatively low self-employment rates such as Australia and Canada (11.9% and 9.3%) had double digit growth rates. The Netherlands and the UK with relatively high self-employment rates had weak growth.

In Tables 8 and 9 respectively I report the self-employment rate with employees and without employees respectively across countries. The overall self-employment rate is just the sum of the two. Of interest is the fact that the former rate, with employees as a percentage of total employment fell only a little in most countries – in the EU28 it fell from 4.5% in 2008Q2 to 4.2% in 2014Q2 - during the Great Recession. The main exceptions are Cyprus (5.4% to 3.7%); Greece (8.2 to 6.1%), Ireland (5.6% to 4.6%) and Spain (5.7% to 4.9%). The ‘no employees’ rate - expressed as a percentage of total employment - rose slightly over the period 2008Q2 to 2014Q2, for the EU28, from 10.3% to 10.7%. Several countries saw sharp increases including Greece (+4.2pp); the Netherlands (3.3pp) and the United Kingdom (+2.1pp) are different again on the upside while there countries with comparable declines e.g. Croatia (-4.8pp); Portugal and Turkey (both -2.8pp), where pp refers to percentage point changes. As a proportion of the self-employed the UK has the lowest percentage with employees of any European country (Hatfield, 2015) while Hungary, Switzerland and Germany have the highest.

Statistics Netherlands noted in 2012 'the number of self-employed has grown by more than 200 thousand over the past decade, entirely due to an increase in self-employed without personnel. Their number grew to 728 thousand in 2011. At the same time, the number of self-employed with personnel remained stable at approximately 350 thousand⁸.' The total number of self-employed in the Dutch labour force younger than 65 increased in the period 2002-2011 from 867 thousand to nearly 1.1 million. There was also an increase among self-employed over-65s: from 28 thousand in 2002 to 47 thousand in 2011. The fastest growing sector was commercial services, where the number of self-employed without personnel grew from 214,000 in 2002 to 302,000 in 2010. Providers of business services mainly accounted for the growth.

In industry (in particular in construction and manufacturing industry), the number of self-employed without personnel increased, but the total number of employees decreased. The number of self-employed without personnel rose from 84,000 in 2002 to 124,000 in 2010, but the number of employees dropped from more than 1.4 million to more than 1.2 million over the same period. Agriculture, forestry and fisheries is the only sector where the number of self-employed decreased. The growth in the number of self-employed without personnel in the Netherlands was predominantly found in the older age categories and among higher educated. Among higher educated, the number of self-employed without personnel rose from 163 thousand in 2002 to 293 thousand in 2011, i.e. nearly two thirds of the total growth in self-employed without personnel. Between 2012Q3 and 2014Q3 the seasonally adjusted number of employees in the Netherlands fell from 7,378,000 to 7,211,000 while the number of self-employed increased from 1,420,000 to 1,463,000⁹. Thus the self-employment rate rose from to 16.2% to 16.8%.

I now move on to report self-employment rates in the EU and OECD by various characteristics. by gender (Table 10) and for the native and foreign born (Table 11). SERs are higher in the EU28 for men than for women as they are for the native born, but there are some exceptions. Female self-employment rates are higher than men, for example, in Greece. The foreign born have noticeably higher rates, for example, in the UK and Germany.

⁸ <http://www.cbs.nl/en-GB/menu/themas/arbeid-sociale-zekerheid/publicaties/artikelen/archief/2012/2012-3611-wm.htm>

⁹ <http://statline.cbs.nl/StatWeb/publication/?VW=T&DM=SLEN&PA=82575ENG&LA=EN>

Table 12 reports changes in the number of self-employed by country for ages 15-74 and separately for three age groups 15-55; 55-64 and 65-74. Overall in the EU self-employment fell by 211,000 whereas the number of employees fell by 925,000; what is most striking though is that the decline in self-employment is driven by a decline of 1.57 million among those aged 15-54; whereas there is an increase of 995,000 and 361,000 respectively for those aged 55-64 and 65-74. A similar pattern is found in Germany where an overall rise of 62,000 consists of a fall of 309,000 among those ages 15-54 and a rise of 370,000 among the two older groups. That is also true in Italy which saw a fall of 658,000 in prime age workers but a rise of 138,000 for those over age 55. In France, the Netherlands and the UK self-employment rises in each of the three groups. Table 13 shows differences and changes in self-employment rates by age. In every country the oldest age group has the highest rate, which in three countries is above 70% i.e. Italy; Luxembourg and Portugal. For the Netherlands and the UK rates rose for all three age groups.

Table 14 reports changes in the numbers of self-employed by education group. It is clear that there has been an increase among the more highly educated in the EU28 by nearly 2 million workers and a broadly equivalent decline for the least educated. Of note is that in both the Netherlands and the UK the bulk of the increase was among the most educated. In the case of the UK there was a decline for the low education group but a small increase in the Netherlands. Table 15 reports confirming evidence by occupation, with the majority of the increase in the UK and the Netherlands among professionals and managers. These data are from 2011Q1 because there is a change in definition and hence a break point at the end of 2010. Table 16 reports changes by industry which shows that half of the increase between 2008Q1 and 2014Q3 in the UK and the Netherlands was in Information and Communication and Professional and Scientific

OECD (2013) usefully summarized the findings in regard to Tables 10-16.

- Although self-employment rates for women have increased, women are significantly less likely to be self-employed than men. In 2011, there were approximately 21 million self-employed men in the EU and 9 million self-employed women.
- Relatively few young people are involved in self-employment in the EU. In 2011, there were approximately 800 000 self-employed people between the ages of 15 and 24.
- While there are only 8 million seniors (55-64 years) in self-employment, more than one-fifth of those seniors that are active in the labor market are active through self-employment.
- In the EU as a whole workers with low education levels are more likely to be self-employed than the overall adult population. This is the case in Ireland; Greece; Portugal; Spain and the UK. However, in other high GDP countries, such as Austria; Belgium; France; Germany; Netherlands and Switzerland the reverse is the case; the more highly educated have higher SERs.
- Ethnic minority and migrant populations are more likely to be self-employed than the overall adult population.
- Out of a total self-employed population in the EU of approximately 30 million, less than one-third (9 million) employ other people and this number has declined over the last decade.
- A clear gender gap is evident among the proportion of self-employed with employees. In 2011, 2 million self-employed women in the EU (24% of self-employed women) had employees while approximately 7 million self-employed men had employees (34% of self-employed men).
- In 2011, 88,000 young people (aged 15 to 24) were self-employed with employees. This represents only 11% of self-employed youth. However, older people (aged 55 to 64) were as likely as other adults (aged 15 to 64) to have employees (30% vs. 29%).
- Although self-employment rates vary little by education level, those with low educational attainment levels are much less likely to have employees than those with tertiary level qualifications. Out of the 5 million self-employed people with employees, about one-third has a low education level.

Table 17 reports on employment stability between the self-employed and employees using data from the fifth European Working conditions survey in 2010. Respondents are asked if they agree with the statement 'I might lose my job in the next few months? Answers are 'agree'; 'neither' or 'disagree'. Somewhat surprisingly there is little difference between the answers of the self-employed and employees.

It still appears that there is a desire among employees to be self-employed. Most don't take up these desires. Table 18 presents evidence from the Flash Eurobarometer 354 from 2012 conducted by the European Commission for 40 countries including the EU28 plus Brazil; China; Iceland; India; Israel; Norway; Russia; South Korea; Switzerland and Turkey. Overall 43% said they would prefer to be self-employed¹⁰. More than two thirds of respondents want to be self-employed in Turkey, Brazil and China. Self-employment is least desired in Scandinavia. Then respondents who said they would like to be self-employed were asked to list reasons and multiple answers were possible. The main three responses are reported. It appears that the main reason is for independence and because of the freedom to choose the place and time of working. 'Better income prospects' are less important than independence in every country.

There is only limited information on the new self-employed although a new survey conducted in the Netherlands by their National Statistical Bureau sheds some light. It asked the self-employed why they became self-employed, with responses split into three groupings – a) with employees; b) without employees and c) the new self-employed

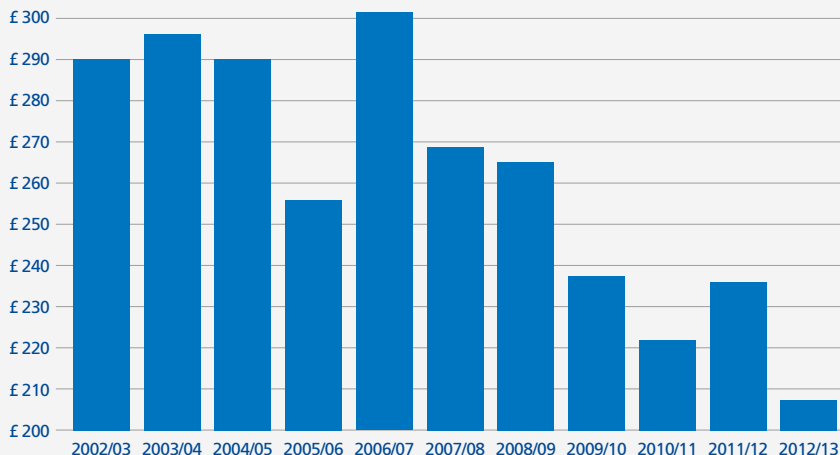
	A)	B)	C)
Looking for a new challenge	31%	27%	39%
Always wanted to	49%	43%	30%
Wanted to decide for myself how much and when I worked	20%	21%	36%
Didn't want to work for a boss	16%	18%	24%
Couldn't find an appropriate wage job	5%	6%	12%
Could make more money self-employed	10%	9%	15%

¹⁰ http://ec.europa.eu/public_opinion/flash/fl_354_en.pdf

It seems that the responses are broadly similar although twice as high a proportion of the new self-employed say they have been pushed there due to a lack of wage work. The new self-employed in the UK and the Netherlands do not look fundamentally different from the existing longer-tenured self-employed.

An obvious question is why are these desires to be self-employed are ultimately not fulfilled. Why don't these employees turn to self-employment? The answer presumably is that despite the fact that self-employment allows workers to be independent it carries risks (Blanchflower, Oswald and Stutzer, 2001). Failure rates are high and for most earnings levels are typically low. Blanchflower and Shadforth (2007) found that despite the fact that mean self-employment earnings in the UK were higher than for employees, median earnings were lower. Recently the Office for National Statistics in the UK reported that median real earnings of the self-employed have fallen 22% since 2008¹¹. Chart 6 illustrates this. I examine self-employment incomes below. We now move on to analyze those who do rather than those who do not and their characteristics.

Chart 6. Median income per week of the self-employed in the UK adjusted for inflation



¹¹ Self-employed workers in the UK, ONS, 20th August 2014 http://www.ons.gov.uk/ons/dcp171776_374941.pdf

2. analysis of the probability of being self-employed – the UK, US and Europe

There is a growing body of econometric research that has examined the probability that a randomly sampled worker is self-employed, holding constant their characteristics, especially their location, age and schooling (see Blanchflower, 2000, 2004 and Blanchflower and Shadforth, 2007 for summaries). Some of this research has also looked at the probability that workers will move into or out of self-employment and the likely reasons for this. The main results from this work are as follows. Self-employment is higher among men than women; among older workers than younger workers; and is particularly high in construction and retailing. It is also especially high among some immigrant groups; it does vary by region and state being especially high in construction occupations, agriculture and retailing.

In the US there is a literature on why the black self-employment rate is well below the white rate (Fairlie and Meyer, 2000). The probability of self-employment is substantially higher among the children of business owners than among the children of non-business owners (see Dunn and Holtz-Eakin, 2000, and Hout and Rosen, 2000). Fairlie and Robb (2007a) have demonstrated that more than half of all business owners had a self-employed family member prior to starting their business. Fairlie and Robb (2007b) also found evidence that other forms of human capital and business human capital—the owner's education level and prior work experience in a business whose goods and services were similar to those provided by the owner's business — are important determinants of business outcomes.

In a recent paper Beckhausen (2014) examined self-employment transitions in the US and notes as Fairlie (2013) did that during periods of recession, self-employment may increase due to its attractiveness as an alternative to unemployment. However, the difficulty of maintaining a business through the downturn can lead to a decrease in the self-employed. Understanding the transitions in and out of self-employment would help us better appreciate how entrepreneurs experience recessions. She uses a robust set of longitudinal data from the Survey of Income and Program Participation (SIPP) to analyze the movements between self-employment, unemployment and wage-work during the Great Recession. The results suggest that the probability of entering self-employment depends on characteristics of the individual while movements out of self-employment are contingent on characteristics of the business. The only significant personal characteristics influencing the probability of exiting self-employment are sex and higher education while the age, size, corporate status, and income of the business all have a significant impact. Personal and geographic characteristics were found to have more influence on the probability of entering self-employment.

Furthermore, the author found transitions from unemployment to self-employment increased during the recession months and transitions from self-employment to wage-work increased in the post-recession months. However, the results indicate that as the unemployment rate fell, the probability of moving to wage-work increased. Since many of the transitions to self-employment were out of necessity, Beckhausen argues, these workers would move back to wage-work if possible. These movements back to wage-work do not correspond with the official recession dates, but instead with decreases in the unemployment rate.

There is evidence from the UK, consistent with this suggesting that in the recession outflow rates slowed sharply. ONS, 2014 found that of people who were self-employed in 2009, 23% were no longer so by 2014, the lowest outflow rate from self-employment for any period over the last 20 years. Therefore the rise in self-employment can mostly be accounted for by fewer people leaving self-employment than in the past. Some 886,000 people who were self-employed in 2009 had left by 2014, compared with 1.3 million who were self-employed in 2004 leaving by 2009. The data for 2004, 2009 and 2014 are below.

Self-employment status	2004	2009	2014
Thousands			
(a) Total self-employment	3,649	3,790	4,573
(b) Self-employed for less than 5 years (Inflow)	1,384	1,444	1,669
(c) Self-employed for more than 5 years	2,265	2,347	2,904
(d) Increase/Decrease from last period	338	141	783
(e) Outflow	1,046	1,303	886
Percentages			
(f) Inflow rate	38	38	36
(g) Outflow rate	32	36	23

ONS (2014) speculates that the fall in the outflow from self-employment could be the result of several economic and social factors which may include:

- More people (both self-employed and employees) continuing to work beyond the state pension age, with self-employment among those aged 65 and over doubling from 241,000 in 2009 to 428,000 in 2014
- Reduced opportunities to work as an employee at the onset of the economic downturn, limiting the opportunity for people to move from self-employment.

This is very different from the claims made in Shapiro (2014) who argues that first, self-employment expands in downturns and second that 'this expansion arises mainly from an increase in transitions from unemployment to self-employment in recessions'.

Broussard et al (2003) found that the self-employed in the USA have between .2 and .4 more children compared to the non-self-employed. The authors argue that having more children can increase the likelihood that an inside family member will be a good match at running the business. One might also think that the existence of family businesses, which are particularly prevalent in construction, is a further way to overcome the existence of capital constraints. Transfers of firms within families will help to preserve the status quo and will work against the interests of minorities in general and blacks in particular who do not have as strong a history of business ownership as indigenous whites. Analogously, Hout and Rosen (2000) found that the offspring of self-employed fathers are more likely than others to become self-employed and argued that the historically low rates of self-employment among African-Americans and Latinos may contribute to their low contemporary rates.

Taller individuals typically have occupations with higher social status and higher earnings than shorter individuals. Further, entrepreneurship is associated with high social status in numerous countries; hence, entrepreneurs might be taller than wage workers. Rietveld et al (2014) examine such an intriguing possibility using data from the German Socio-Economic Panel (2002-2010). They find that a 1 cm increase in an individual's height raises the probability of being self-employed versus paid employed by 0.16 percentage-points. Within self-employment the probability of being an employer is increased by 0.11 percentage-points as a result of a 1 cm increase in height whereas this increase is 0.05 percentage-points for an own-account worker. Furthermore, they confirm that a height premium in earnings exists for not only paid employees, but also for self-employed individuals. An additional 1 cm in height is associated with a 0.44% increase in hourly earnings for paid employees, and a 0.87% increase for self-employed individuals. The predicted earnings differences between short and tall individuals, the authors show, are substantial. Short paid employees — first quartile of height — earn 15.5 Euros per hour whereas tall paid employees — third quartile of height — earn 16.5 Euros per hour; in self-employment the earnings are 12.8 and 14.4 Euros per hour, respectively.

I now move on to use econometric methods to examine self-employment in two special case studies for the USA and the UK that as I noted above have had quite different time series paths for self-employment and elsewhere using a series of micro-data files. I also examine data for a number of other European countries plus a number of less developed countries.

2.1. United States

Table 19 sets out the numbers of unincorporated self-employed, as well as the SER from 1948-2014 September, which is the latest data available. There has been little change in the numbers, around 10 million over this entire period. The rise in the numbers of employees means that the self-employment rate fell from 18.5% to 6.5%. There has been a drop of around a million since the onset of the Great Recession in 2007. I also present data since 2000 on the number of self-employed that are incorporated; this number has risen from 4.45 million in 2000 to 5.78 million in 2008, falling back subsequently to 5.4 million or half the number of the unincorporated.

Table 20 examines data from the March Current Population Surveys and shows that US self-employment rates, in the raw data are higher for

- a) Men
- b) Older workers
- c) Whites and Asians
- d) Married

Table 21 moves on to estimate the probability an individual is self-employed, conditional on their characteristics using the STATA procedure `dprobit`. Do the patterns in Table 20 remain once, for example, location and schooling are controlled for, using data from the 2013 American Community Survey conducted by the US Census Bureau on around 2 million workers. The dependent variable in column 1 is set to one if self-employed and zero if an employee. Those not in the labor force are not included in the analysis. In column 2 the dependent variable is set to one if an unincorporated self-employed and in column 3 if incorporated. To ensure comparisons are being made with employees in column 2 the self-employed with employees are excluded while in column 3 the incorporated are excluded. The findings are as follows

Holding constant characteristics SERs in column 1 for the self-employed overall are higher for

- a) males,
- b) those with a professional degree,
- c) workers over the age of 64,
- d) in construction and agriculture
- e) whites

In column 2 the results are similar although the coefficient is smaller on those with a professional degree, which is much larger in column 3. The construction and agriculture effects are more marked for the unincorporated. There is no significant difference between whites and Asians among the incorporated but there is for the unincorporated.

2.2. The United Kingdom

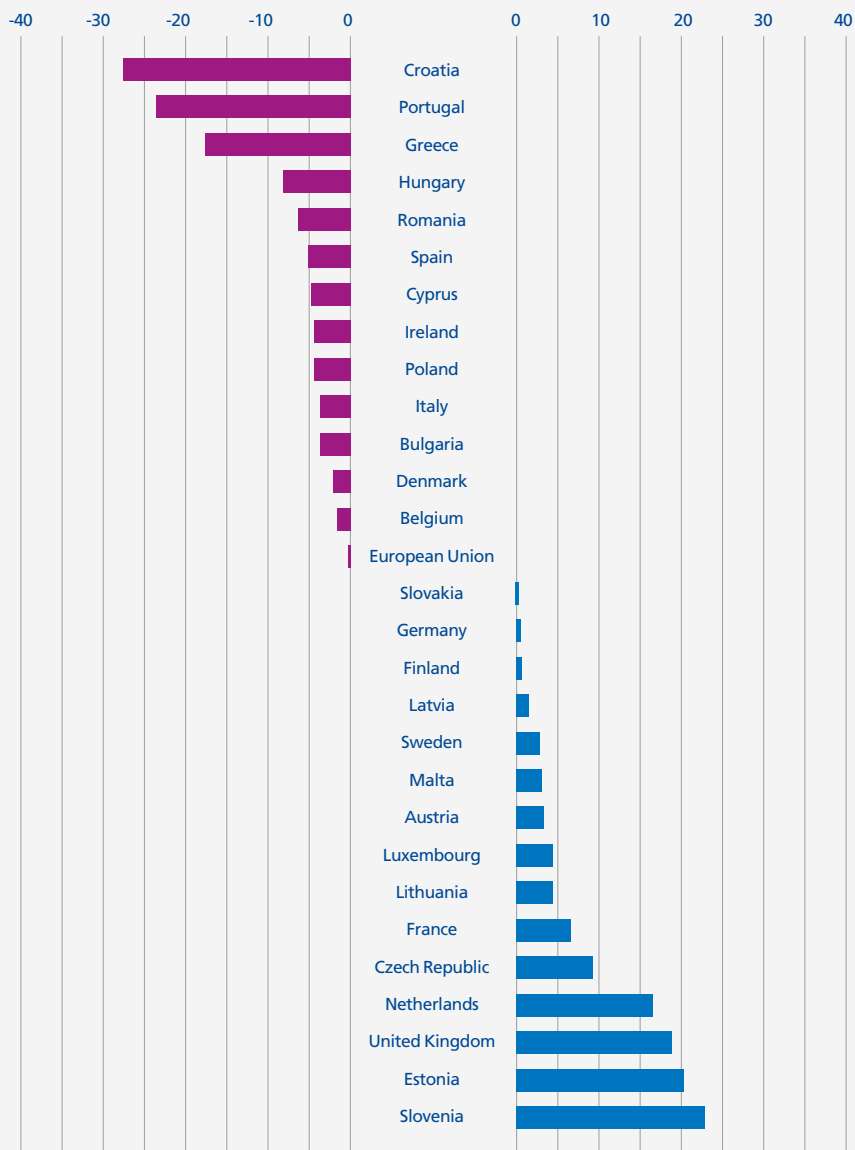
Table 22-24 reports self-employment rates and how they have changed over the Great Recession from 2009-2014. Table 22 shows changes by occupation, with the biggest growth among Managers, Directors and Senior Officials (+237,000). Table 23 reports self-employment numbers and rates in the UK by industry in 2009 and 2014; the biggest numerical changes have been in Professional, Scientific and Technical activities (+119,000) and Administrative and Support Services (+88,000). In part this growth in self-employment at the top of the labor market. Is the flip side of the decline in public sector jobs. Activities in the public sector have been privatized, the workers have been let go and then rehired as 'self-employed' consultants. Excluding the effects of major reclassifications between the public and private sectors – which include the takeover of RBS, Lloyds and Northern Rock, plus a reclassification of 200,000 teachers and lecturers from public to private, public sector employment is down by around 900,000 since June 2010. Self-employment is up by almost the same number over the period May-July 2010 to Sep-Nov 2014– or 531,000.

There is also evidence from the UK that there has been an increase in the number of employees with second jobs. Using data from the Labour Force Survey for the three months ending September, 2006 to 2014 the ONS reported the numbers in thousands as follows:

	Employee main job self-employed second job	Self-employed main job employee second job	Total
2006	242	78	320
2007	277	80	357
2008	275	80	355
2009	290	88	378
2010	293	90	383
2011	281	94	375
2012	295	84	379
2013	315	95	410
2014	358	93	450

It is also apparent in the UK that the self-employed work more hours. For example, 3.9% of employees say they work more than 59 hours a week compared 13.2% of the self-employed (ONS 2014). Table 24 reports changes over these years by region and shows the biggest growth has been in London and the South East.

Chart 7. Percentage change in self-employment (EU 2009-2014)



Source: Eurostat, European Labour Force Survey

The UK is a particularly interesting case given that the rise in self-employment in the UK (Chart 7) since 2009 is third highest in the EU after only Slovenia and Estonia. More does not look to be better¹². It is notable in the UK that in recent years there has been a marked growth in underemployment, that is, where there has been a rise in involuntary part-time work. But the phenomenon is broader than that as Bell and Blanchflower (2013) have documented; workers report on the number of hours they would like to work which can be aggregated to the economy level. The numbers who report they would like more hours have remained roughly constant, but those stating they would like more hours has risen sharply. The self-employed are especially likely to say they are hours constrained currently. That was not the case pre-recession.

In an IPPR paper Hatfield (2015) examined the proportion of self-employed workers in several countries who were looking for another job in 2007 and in 2012. In the UK, the percentage of self-employed looking for another job has almost doubled to 6 per cent over this period, and the same has been seen, to a lesser extent, in Spain, the Netherlands, Sweden and France. By contrast, Hatfield found Germany and Poland saw a decrease in the proportion of self-employed workers looking for another job; in Poland the percentage has almost halved. Germany and Poland did not see a rise in self-employment over this period, so there are numerically fewer self-employed workers looking for another job. Nonetheless, self-employed workers in all of the countries studied were less likely to be looking for another job than employees are; in the UK, for example, over 8 per cent of employees are looking for another job, while less than 6 per cent of self-employed workers are.

Hatfield also found that in the UK, by far the most common reason for self-employed workers looking for another job was 'seeking an additional job to add more hours'. This reason was given by 48 per cent of self-employed workers, compared to just 12 per cent of employees, which she argues suggests that underemployment is a significant problem for those working for themselves. On the other hand, 'risk or certainty of loss of present job' is much less of a problem for self-employed workers than for employees, 'perhaps supporting the idea that the self-employed have the ability to be more resilient during difficult labour market conditions'. Hatfield also found there was a marked increase between 2007 and 2012 in the percentage of self-employed workers wanting more hours, in Spain, France, Germany, and Sweden and especially so in the Netherlands and the UK.

¹² This seems to be the right conclusion across countries. In contrast Rupasingha and Goetz (2013) find using data cross metro and non-metro areas in the US that indicate that higher self-employment rates are associated with statistically significant increases over time in income and employment growth, and reductions in poverty rates in non-metro counties. The authors use the non-farm proprietorships (NFPs) data from the Bureau of Economic Analysis (BEA) as a proxy for self-employment.

Table 25 estimates dprobit self-employment equations using micro data from the UK Labour Force Surveys before (January – December 2007) and after the Great Recession (October 2013–September 2014)¹³. The variables are similar to those used for the USA in Table 21. In columns 1 and 2 the results are for the self-employed in total; columns 3 and 4 are for those without and with employees. In columns 3 and 4 those with employees are excluded while in columns 5 and 6 those without are excluded. The distinction made in the US between the incorporated and unincorporated is now between those without employees and those with – in both cases the former are likely to have higher earnings than the latter.

I find evidence that self-employment probabilities rise with age, are higher for males, are higher for workers with degrees; for Asians and Chinese and in construction and agriculture. The finding that SERs are higher for degree holders is apparent for those with employees but not without. Over the two years relatively little has changed in the characteristics of the self-employed perhaps with the exception of a relative increase in SERs for those over age 65. Taylor (2004) has similar findings using data from the British Household Panel (BHPS) and also finds that individuals who have been exposed to self-employment as a child and who have greater wealth and access to capital markets are most likely to become self-employed. Taylor (2001) found that liquidity constraints are important in the UK by looking at the impact of windfall gains which he found resulted transitions into self-employment and gains in income for those who were liquidity constrained.

¹³ Dprobit is statistical procedure in STATA that fits maximum-likelihood probit models and is an alternative to probit. Rather than reporting the coefficients, dprobit reports the marginal effect, that is, the change in the probability for an infinitesimal change in each independent, continuous variable and, by default, reports the discrete change in the probability for dummy variables.

2.3. Other countries

In Table 26 I extend the analysis to a sample of thirty six countries taken from the 2012 ISSP. This includes advanced 17 OECD countries (Australia; Austria; Canada; Denmark; Finland; France; Germany; Iceland; Ireland; Israel; Japan; Norway; Spain; Sweden; Switzerland; United Kingdom and the United States) as well as 9 countries from Eastern Europe (Bulgaria; Croatia; Czech Republic; Latvia; Lithuania; Poland; Russia; Slovakia; Slovenia) plus 10 less developed countries (LDCs) i.e. (Argentina; Chile; China; Taiwan; India; South Korea; Mexico; Philippines; Turkey and Venezuela). In columns 1 and 2 I include the entire sample and it is apparent that years of education enter negatively in the no employees equation and positively in the with employees equation. Of interest is the same pattern exists in the final two columns when the sample is restricted to the East European and LDC countries, with somewhat larger coefficients.

In column 1 of Table 27 I estimate self-employment probabilities for 31 EU countries including the EU28 plus Turkey and Turkish Cyprus; FYR Montenegro and Iceland using data on over a quarter of a million workers from nine Eurobarometer surveys from 2011 to 2013.. We don't have data on whether the self-employed have employees so the dependent variable is one if self-employed zero if an employee all based on whether the individual is currently working. Overall, our earlier results are confirmed: SER's are higher for men and rise with age. They are especially high in Greece and Turkish Cyprus and lowest in Sweden and Denmark. It turns out, as we examine further below that Greece have very low levels of well-being and Sweden and Denmark very high levels. As we find below there appears in these data to be a negative relationship between self-employment rates and happiness.

It turns out that these results are broadly in line with the findings of Aboal and Veneri (2014) from the Inter-American Development Bank on the characteristics of the self-employed in nine Latin American countries (Argentina; Bolivia; Brazil; Colombia; Ecuador; Peru; Uruguay and Venezuela). The typical Latin American entrepreneur-employer, the authors find has the following measured characteristics considered "above the mean": male, history of parent-entrepreneurs, financial access, and some specific personality traits (i.e., achievement oriented, multitaskers, show a high tolerance for risk, and the need for autonomy).



3. happiness, well-being and job satisfaction of the self-employed

There is a growing literature on happiness and well-being (Blanchflower and Oswald, 2004; Blanchflower, 2008; Blanchflower et al, 2014). In general economists have focused on modelling two fairly simple questions, one on life satisfaction and one on happiness. These are typically asked as follows.

Q1 Happiness – (e.g. from the US General Social Survey)

“Taken all together, how would you say things are these days – would you say that you are very happy, pretty happy or not too happy?”

Q2 Life satisfaction – from the Eurobarometer Surveys

“On the whole, are you very satisfied, fairly satisfied, not very satisfied, or not at all satisfied with the life you lead?”

The standard approach to assessing responses to happiness questions is to estimate an equation with the happiness response as the dependent variable using ordinary least squares (OLS) or ordered logit from a large-scale individual survey. Higher values of the dependent variable are associated with higher levels of happiness. Generally, the use of OLS or ordered logit makes little difference. Controls include employment status dummies (e.g., being self-employed, student, unemployed etc.) together with other relevant personal characteristics (age, gender, income, marital status, education).

This approach begs the question as to whether comparisons of life satisfaction across individuals are meaningful given language and cultural differences even within countries. One way to do this is to check for objective measures that might corroborate happiness research’s findings. Blanchflower and Oswald (2008) found that happier nations report systematically lower levels of hypertension. Happiness and blood pressure are negatively correlated across countries ($r = -0.6$). This seems to represent a first step toward the validation of cross-country estimates. Denmark has the lowest reported levels of high blood pressure in their data. Denmark also has the highest happiness levels. Portugal has the highest reported blood pressure levels and the lowest levels of life satisfaction and happiness. It appears there is a case to take more seriously the subjective happiness measurements made across countries and it seems meaningful to do cross-country comparisons (Blanchflower 2007).

It is apparent that there is a great deal of stability in happiness and life satisfaction equations, no matter what country is looked at, what dataset or time period used, whether the question relates to life satisfaction or happiness, or how the responses are coded (whether in three, four, five or even as many as ten categories). Well-being is correlated with life events such as being unemployed or being married. In particular, economics research has been focusing on the relationship between income and happiness and interdependence of preferences. But individuals in the USA were found to be less happy if their incomes are far above those of the poorest people (Blanchflower and Oswald, 2004). People, however, do appear to compare themselves more with well-off families, so that perhaps they get happier the closer their income comes to that of rich people around them. Relative income certainly appears to matter. The main findings concerning personal characteristics from happiness and life satisfaction equations such as (1) can be summarized as follows:¹⁴

Happiness is higher among:	Happiness is lower among:
Women	Newly divorced and separated people
Married people	Adults in their mid to late 40s
The highly educated	The unemployed
The healthy	The disabled
Those with high income	Immigrants and minorities
The young and the old – happiness is U-shaped in age	Those in poor health

It appears that the self-employed are especially happy. In Blanchflower and Oswald (1998) we reported using data from the National Child Development Study in the UK that the self-employed report higher levels of overall utility or job satisfaction than do employees. This higher levels of job satisfaction among the self-employed result was replicated in Blanchflower (2000) using a Eurobarometer (EB) survey for 1995-6 and ISSP data for 1989, for a number of EU countries as well as for the United States using data from the General Social Surveys (GSS) for 1972-1998. I concluded that 'the self-employed are more satisfied with their jobs than are individuals who work for somebody else'. I updated this analysis in Blanchflower (2004) finding similar results. Job satisfaction was higher among the self-employed than wage workers in the US using data from the 1972-2002 GSS¹⁵. In this paper I also examined a 2001 EB survey for EU countries which contained data on whether the self-employed had employees or not. On average in the EU the self-employed with employees report higher levels of job satisfaction than did the self-employed without employees; both groups have higher levels of satisfaction than employees. Exceptions to this general rule were found in Greece and Luxembourg where employees were the most satisfied and in Germany and Sweden where the self-employed with no employees have the highest satisfaction.

¹⁴ For in-depth reviews on the happiness research in economics see Frey and Stutzer (2002), Di Tella and MacCulloch, 2006 and, more recently, Blanchflower and Oswald (2011) and MacKerron, (2012).

¹⁵ The finding of higher job satisfaction levels among the self-employed was confirmed by Frey and Benz (2008) in a study that examined data from Germany, Switzerland and the UK.

Benz and Frey (2008) confirmed that self-employed are substantially more satisfied with their work than employed persons. They documented this relationship for 23 countries using the 1997 ISSP¹⁶. They showed that the higher job satisfaction can mainly be attributed to the more interesting jobs and to the greater autonomy that self-employed persons enjoy 'Doing what you like to do', they argued, seems to provide non-pecuniary benefits from work suggesting the existence of procedural utility: interesting work and autonomy are valued beyond material outcomes as good procedural work characteristics. Their results hold for western European, North American and eastern European countries, but largely also for countries with a non-western cultural background.

In Blanchflower (2004) I also found evidence in the Eurobarometer trend file 1975-1998 that the self-employed had higher levels of life satisfaction, but this was not the case when the World Values Survey 1981-1997 was used. From my earlier work the finding of a self-employment well-being premium in job satisfaction are somewhat stronger than those on life satisfaction. In a recent survey of the happiness literature, Dolan et al. (2008, p. 101) also conclude that evidence on a relationship between self-employment and happiness is rather unclear.

Binder and Coad (2013) help to shed light on this puzzle by examining whether, despite lower incomes the self-employed who report higher satisfaction with their jobs also have higher overall happiness. They used data from the British Household Panel Study from 1996 to 2006. They find that individuals who move from regular employment into self-employment experience an increase in life satisfaction (up to 2 years later), while individuals moving from unemployment to self-employment are not more satisfied than their counterparts moving from unemployment to regular employment. Millán et al. (2013) find that while the self-employed are more satisfied with the type of work they do, paid employees are more satisfied in terms of job security. In contrast Hanglberger and Merz (2011) argue that the self-employed are not more satisfied than regular employees. They use data for Germany from the GSOEP and find large negative anticipation effects preceding the change from regular employment to self-employment and a large improvement in the level of job satisfaction upon becoming self-employed. This increase diminishes after three years, so individuals adapt to being self-employed. Furthermore, the negative anticipation effects were found for any job change, including as employees. For a further discussion of the relations between happiness and work see Krause (2014).

¹⁶ The 23 countries were from western Europe (Germany, Great Britain, France, Italy, Portugal, Switzerland, Denmark, Norway, Sweden), North America (United States of America, Canada), eastern Europe (Hungary, Czech Republic, Poland, Bulgaria, Slovenia, Russia) and a residual group of "non-Western" countries (Japan, New Zealand, Cyprus AND Israel), and two less developed countries (Bangladesh and the Philippines).

In an interesting new paper Hetschko (2014) uses data from the German Socio-Economic Panel to show that the decrease in life satisfaction caused by an increase in the probability of losing work is higher when self-employed than when paid employed. Further estimations reveal that becoming unemployed reduces self-employed workers' satisfaction considerably more than salaried workers' satisfaction. These results indicate that losing self-employment is an even more harmful life event than losing dependent employment. Monetary and non-monetary reasons, Hetschko suggests seem to account for the difference between the two types of work as it originates from the process of losing self-employment and the consequences of unemployment rather than from advantages of self-employment. He concludes "stronger feelings of personal failure associated with greater distance from one's ideal self as well as worse future employment and financial prospects may account for the extraordinary misery of losing self-employment compared to losing dependent employment".

Andersson (2008) examined data from the Swedish Level-of-Living Survey for the 2 years 1991 and 2000 and considered six indicators of well-being: (1) job satisfaction, (2) life satisfaction, (3) whether the job is stressful, (4) whether the job is mentally straining, (5) mental health problems, and (6) poor general health. Logit models were estimated and to handle the possible selection of more satisfied individuals and individuals more able to handle stress into self-employment, conditional fixed-effects logit models are estimated for each of the outcomes. Andersson confirmed that self-employment leads to an increase in job satisfaction and also found a positive correlation between self-employment and life satisfaction. Evidence was also reported that self-employment leads to more mental health problems, and that the self-employed are less likely to perceive their job as mentally straining.

Column 2 of Table 27 estimates a life satisfaction equation using the four-step life satisfaction question in Q2 above using the nine Eurobarometers used to estimate the self-employment equation in column 1 of the table discussed above. I find that the self-employed have higher life satisfaction, holding constant characteristics. Consistent with the findings discussed above I also find women are happier than men and those with more schooling are happier. There is also a U-shape in age (Blanchflower and Oswald, 2008). Consistent with the earlier literature northern European countries of Sweden, Iceland and Sweden have highest levels of happiness and the East European countries Bulgaria, Serbia and Greece have the lowest. I then took the coefficients for these thirty four countries from both the self-employment and life satisfaction equations and plotted them against each other. It appears that countries with higher self-employment rates have lower levels of life satisfaction.

Table 28 makes use of data from another survey that samples individuals across the EU28 as well as Iceland; Kosovo; Macedonia; Montenegro and Serbia - the European Quality of Life Survey (EQLS11) for 2011. This time we have data on whether the self-employed worker has employees or not. Questions of the form of Q1 on happiness and Q2 on life satisfaction are asked. "Taking all things together on a scale of 1 to 10, how happy would you say you are? Here 1 means you are very unhappy and 10 means you are very happy" and "All things considered, how satisfied would you say you are with your life these days? Please tell me on a scale of 1 to 10, where 1 means very dissatisfied and 10 means very satisfied". Responses in columns 1 and 2 are broadly similar; the unemployed are unhappy there is a U-shape in age. There is no difference in the well-being levels of employees and those without employees, but those with employees are happier.

In column 3 the sample is restricted to workers only and the question asked now refers to satisfaction with their 'present job'. Respondents are asked 'Could you please tell me on a scale of 1 to 10 how satisfied you are with your present job, where 1 means you are very dissatisfied and 10 means you are very satisfied?'. Both types of self-employed have higher job satisfaction than employees but once again those with employees express the greatest satisfaction. This presumably is one of the reasons why employees say they would like to be their own bosses – the job conveys greater satisfaction.

Table 29 estimates happiness and job satisfaction equations for a) OECD countries b) East European countries c) Non-OECD countries. These consist of seventeen OECD countries, nine East European including Russia and ten LDC's for whom we report results separately on happiness and job satisfaction¹⁷. We are able to distinguish the self-employed who have employees and those who do not. In all three country groups there is evidence that the self-employed with employees are the happiest and have the highest levels of job satisfaction. In LDCs even those without employees are happier than employees, but this is not so at conventional 95% levels of significance in OECD countries or in Eastern Europe. The same applies to job satisfaction. I find a U-shape in age in all three groupings for both happiness and job satisfaction. The self-employed appear to have high levels of wellbeing and contentment in their lives and their jobs.

¹⁷ The Eastern European countries are Bulgaria; Croatia; Czech Republic; Latvia; Lithuania; Poland; Russia; and Slovakia. The Less Developed Countries (LDCs) are Argentina; India; Chile; China; Korea; Mexico; Philippines; Taiwan; Turkey and Venezuela. The OECD countries are Australia; Austria; Canada; Denmark; Finland; France; Germany; Iceland; Ireland; Israel; Japan; Norway; Spain; Sweden; Switzerland; United Kingdom; United States.

Table 30 examines recently available data from the European Social Survey of 2013 covering thirty five countries including the EU28 plus seven non-EU countries of Albania; Iceland; Israel; Kosovo; Norway; Switzerland and the Ukraine. It reports on estimating six different equations, where the dependent variable relates to levels of 1) optimism; 2) feeling positive; 3) free to decide how to live my life; 4) having lots of energy; 5) job satisfaction and 6) work-life balance¹⁸. I am able to distinguish between those self-employed who have employees and those who have none. The sample only includes workers.

Table 31 makes use of a large data file from the UK, the 2010-2012 Annual Population Surveys which include questions on happiness along with whether the respondent is self-employed with or without employees. The exact question asked was 'Overall, how happy did you feel yesterday? where nought is 'not at all happy' and 10 is 'completely happy.' As in Tables 29 and 30 the self-employed are happier than employees, with those with employees the happiest. Given the large sample size I am able to run separate equations for employees (column 2) and the self-employed (column 3). For both employees and the self-employed happiness is U-shaped in age minimizing in the late forties and females are happier than males and the married are especially happy. Months of tenure is significant and positive for employees but not for the self-employed. Usual hours are negative for employees but insignificant for the self-employed.

In comparison with employees, the self-employed are more optimistic; feel more positive, are more free, to decide how to live their lives; have greater levels of energy and job satisfaction and better work/life balance. In the first five equations this is especially so for those with employees. In the final column we see that those with employees report a worse work/life balance than those without employees. Being self-employed with employees is stressful. The self-employed are especially satisfied.

I now move on to consider the extent to which liquidity constraints impact the ability of people to become and stay self-employed. The answer is they do a lot.

¹⁸ Exact questions asked are defined in the notes to the table.

4. liquidity constraints and financing of SMEs and Entrepreneurs

In work based on U.S. micro data at the level of the individual, Evans and Leighton (1989), and Evans and Jovanovic (1989), have argued formally that entrepreneurs face liquidity constraints. The authors use the National Longitudinal Survey of Young Men for 1966-1981, and the Current Population Surveys for 1968-1987. The key test shows that, all else remaining equal, people with greater family assets are more likely to switch to self-employment from employment. This asset variable enters probit equations significantly and with a quadratic form. Although Evans and his collaborators draw the conclusion that capital and liquidity constraints bind, this claim is open to the objection that other interpretations of their correlation are feasible. One possibility, for example, is that inherently acquisitive individuals both start their own businesses and forego leisure to build up family assets. In this case, there would be a correlation between family assets and movement into self-employment even if capital constraints did not exist. A second possibility is that the correlation between family assets and the movement to self-employment arises because children tend to inherit family firms. Parker (2002) is one of the very few papers providing some much needed theoretical arguments on whether and why banks ration enterprises.

There is evidence that capital constraints bind and when lifted, self-employment rises (Blanchflower and Oswald, 1998; Blanchflower, Levine and Zimmerman, 2003; Blanchflower 2009). Blanchflower and Oswald (1998), find that the probability of self-employment depends positively upon whether the individual ever received an inheritance or gift. This emerges from British data, the National Child Development Study; a birth cohort of children born in March 1958 who have been followed for the whole of their lives. Second, when directly questioned in interview surveys, potential entrepreneurs say that raising capital is their principal problem. Third, the self-employed report higher levels of job and life satisfaction than employees. Fourth, psychological test scores play only a small role. Work by Holtz-Eakin, Joulfaian and Rosen (1994a, 1994b), drew similar conclusions using different methods on U.S. data.

Blanchflower, Oswald and Stutzer (2001) found that there is a strikingly large latent desire to be in charge of one's own business. There exists frustrated entrepreneurship on a huge scale in the U.S. and other OECD countries. In the U.S., seven out of ten people say they would prefer to be self-employed. This compares to an actual proportion of self-employed people in 2001 of 7.3 percent of the civilian labor force, which also shows that the proportion of the labor force that is self-employed has declined steadily since 1990 following a small increase in the rate from 1980 to 1990 (Fairlie and Meyer, 2000)¹⁹. This raises an important puzzle. Why do so few individuals in the U.S. and OECD manage to translate their preferences into action? Lack of start-up capital is one likely explanation.

Blanchflower, Levine and Zimmerman (2003) examined the availability of credit to minority and female-owned small businesses using data from the 1993 and 1998 National Surveys of Small Business Finances conducted by the Reserve Board of Governors. They demonstrated that loan denial probabilities for African-American owned firms were approximately double those for comparable white-owned firms in both sweeps of the survey. Even when African-Americans were able to obtain loans they had to pay higher interest rates. Comparable but smaller effects were found for Hispanics. These differences were not explained by differences in creditworthiness or other observables. Such differences disappeared when the use of credit cards was examined, where the banks were unaware of the race of the applicant. The authors found that firms owned by minorities are discriminated against in the credit market. Similar results were found by Cavalluzzo, Cavalluzzo and Wolken (2002).

Blanchard et al (2008) confirm the results found in Blanchflower, Levine and Zimmerman (2003) and also report statistically significant evidence of substantial discrimination in loan approval against black-owned and Hispanic-owned businesses using data from the 1993 and 1998 SSBF. They also found that black-owned businesses do face discrimination in interest rates when they borrow from finance companies and businesses, such as mutual fund companies and leasing companies, with a primary mission other than lending. The authors argue that their findings "suggest that federal financial regulatory agencies should re-double their efforts to uncover and prosecute lenders who discriminate against black- and Hispanic-owned businesses and that new tools may be needed to find discrimination by firms not well covered by the existing fair-lending enforcement system".

¹⁹ Fairlie and Meyer (2000) documented the fact that the self-employment rate for white men fell from 1910 to 1970 but then increased until 1990. That trend has continued to fall thereafter according to Table 2 post 1993.

In a study conducted for the SBA Office of Advocacy, Mitchell and Pearce (2005) confirmed the findings in Blanchflower, Levine and Zimmerman (2003) using data from the 1998 SSBF. Mitchell and Pearce found that African-American and Hispanic firm were discriminated against but found no evidence for this for female- or Asian-led firms. Coleman, (2002, 2003) estimated loan denial models for African-American and Hispanic firm owners using the 1998 SSBF and found they are more likely to be denied loans by all types of lenders, but especially commercial banks.

Bohdan, et al (2014) also confirmed the findings in Blanchflower (2009) with the same data, the 2003 Survey of Small Business Finances conducted by the Federal Reserve. They explored the availability of loan financing to minority-owned businesses and examines a potential relationship between the size of a loan and the characteristics of a business in the USA. It also investigates the possible impact of different characteristics and quantifiable criteria on credit loan denial across different demographic groups. Probit models are used to evaluate the potential existence of racial or ethnic discrimination in the availability and approval of credit. Regression analysis is used to assess the impact that the race of a small business owner has on the relative size of a denied loan, the size of portioned credit, or the size of the company. When other variables suspected of influencing credit approval and rationing are controlled, black-owned and Asian-owned businesses were be less likely to be approved for loans and more likely to experience significantly greater credit rationing than their white counterparts. The authors concluded

“Entrepreneurs and small businesses need access to capital, including debt capital. If small businesses are to play a role in leading economic growth, small businesses must be able to secure loans. If minority-owned businesses are to share in the economic opportunities available in a mature market economy such as the United States, full access to loans is necessary. The research presented here suggests that minority owned businesses are less likely to apply for loans as well as less likely to be approved for loans than their white counterparts. As such, these businesses are also subject to more serious capital constraints than white owned businesses and therefore, less likely to thrive and grow.”

In an interesting paper Nykvist (2008) examined whether potential entrepreneurs face liquidity constraints on Swedish data. Nykvist concludes that liquidity constraints do play a significant role when determining transition into entrepreneurship in Sweden. Magri (2008) studies similar questions for Italy, and also found that liquidity constraints affect entrepreneurial entry in that country also. In an interesting paper Nykvist (2008) examined whether potential entrepreneurs face liquidity constraints using similar methods to HL on Swedish data. Nykvist concludes that liquidity constraints do play a significant role when determining transition into entrepreneurship in Sweden. Magri (2008) studies similar questions for Italy, and also found that liquidity constraints affect entrepreneurial entry in that country also.

difficulties the self-employees and SMEs have in obtaining capital. The most recent edition of the OECD serial for 2014, *Financing SMEs and Entrepreneurs 2014: An OECD Scoreboard* has some interesting data showing the marked differences across OECD country in credit availability, including slow pay. Their main findings are as follows, and I quote directly.

SMEs continued to face the dual challenges of an uneven recovery and bank deleveraging in 2012. The challenging macroeconomic environment, characterized by subdued growth and demand, translated into declining profits for SMEs and reduced availability of internal funding. At the same time, the financial sector continued the deleveraging process started in the aftermath of the crisis, with banks endeavoring to meet Basel III capital and leverage ratio requirements through a combination of asset reduction and capital raising. In some countries, the sovereign debt crisis increased the deficiencies in capital adequacy. This squeezed credit availability for the entire banking system, but impacted SMEs more than large firms. SMEs and entrepreneurs continued to face greater vulnerability to credit market conditions due to their heavy reliance on bank credit.

Despite monetary easing, credit availability was a constraint for SMEs in 2012. According to the OECD a significant degree of uncertainty characterized the financial environment in 2012, with non-negligible swings across quarters, and some improvements in late 2012 and early 2013. Monetary easing continued in 2012, as a response to the financial and economic crisis and financial market turbulence. However, in most countries, the OECD argued this did not result in an increased flow of credit from financial institutions to the private sector, especially SMEs. On the contrary, following a weak recovery in 2010-11, in 2012 the stock of outstanding loans decreased in some countries and expanded at a slower pace in others, including emerging economies that had experienced substantial business credit growth in 2010-11.

Credit conditions remained tighter for SMEs in relation to large firms. In 2012, while 18 out of 31 countries experienced declining nominal interest rates, interest rate spreads between small and large enterprises increased in most cases. Moreover, in most countries examined according to the OECD, collateral requirements also increased during 2012. This reflected heightened risk aversion on the part of banks.

Payment delays and bankruptcies continued to increase in 2012 for most countries. This the OECD argues was attributable to cash flow constraints and insufficient availability of funds in companies; liquidity constraints among clients; and firms entering bankruptcy or going out of business. Significant increases in failing companies were observed in the countries hit by the sovereign debt crisis.

Three tables taken from the OECD serial for 2014, Financing SMEs and Entrepreneurs 2014: An OECD Scoreboard are especially instructive. Table 32 shows the growth or decline in SME business loans from 2007-12. From 2009 onwards there were declines in each of the four years in the UK and the USA. The decline of 21% in Sweden in 2010 is particularly notable. SME loans were still declining in 2012 in Greece, Ireland, Italy, Portugal, Serbia, the UK, USA. This is interesting in the UK context given the rise in self-employment. Table 33 shows trends in payment delays, in days, which tend to act as a capital constraint for SMEs, who have little working capital. The SME has to pay wages to its staff and pay its credit card bills even though its clients – who are frequently public sector clients – are often slow to pay. Slow pay rose sharply in 2009 and still remains a major issue in Greece, Ireland, Portugal and the UK, where delays are long. Table 34 reports trends in bankruptcies, which remain well above pre-recession 2007 levels in most countries.

Statistics on payment delays and bankruptcies, the OECD argues, reflect problems in maintaining cash flows under different economic conditions²⁰. They report that it was difficult to maintain cash flows when the recovery stalled and credit terms tightened, as shown by the decline SME loan shares and the increase in interest rates and collateral requirements. Nineteen countries were able to report on payment delays. Of those, 11 experienced an increase in payment delays and only five a decrease over 2011-12, with two reporting a flat trend. It is significant that, for almost half of the countries, including Austria, Belgium, Hungary, Ireland, the Netherlands, Portugal, the Slovak Republic and the United Kingdom, payment delays were higher than at the height of the financial and economic crisis in 2009. There are different possible explanations for such an increase, the OECD suggested, such as insufficient availability of funds and cash flow constraints in companies, liquidity constraints among clients, counterparties entering bankruptcy or going out of business. Increases in failing companies are observed in the countries suffering the repercussions of the sovereign debt crisis, such as Ireland, Portugal and Spain, with the latter experiencing a sevenfold increase in bankruptcies throughout the 2007-12 period. In 2012, the bankruptcy rate exceeded that observed at the peak of the crisis (2009) for a number of countries, namely Belgium, the Czech Republic, Denmark, Hungary, Ireland, Italy, the Netherlands, Portugal, the Slovak Republic, Spain, Switzerland and Turkey.

The OECD (2014a) concluded as follows

“The sovereign debt crisis that hit several European countries and the difficult economic conditions led to deterioration in the lending activities of banks in 2011-12, decreasing the availability of credit to small businesses. In addition, the financial sector continued the deleveraging process that had started in the aftermath of the crisis, with banks endeavouring to meet Basel III capital and leverage ratio requirements through a combination of asset reduction and capital raising. Mid-tier and smaller banks, vital for lending to SMEs, find it harder to tap the capital markets and are more likely to meet their deleveraging targets through asset reductions. The deleveraging needs of the banks, which are due to persist throughout 2013, have squeezed credit availability for the entire banking system. The impact has been more severe for SMEs than large firms, with the divergence in trends between the two apparent in 2012, when lending standards tightened for SMEs, relative to large companies.”

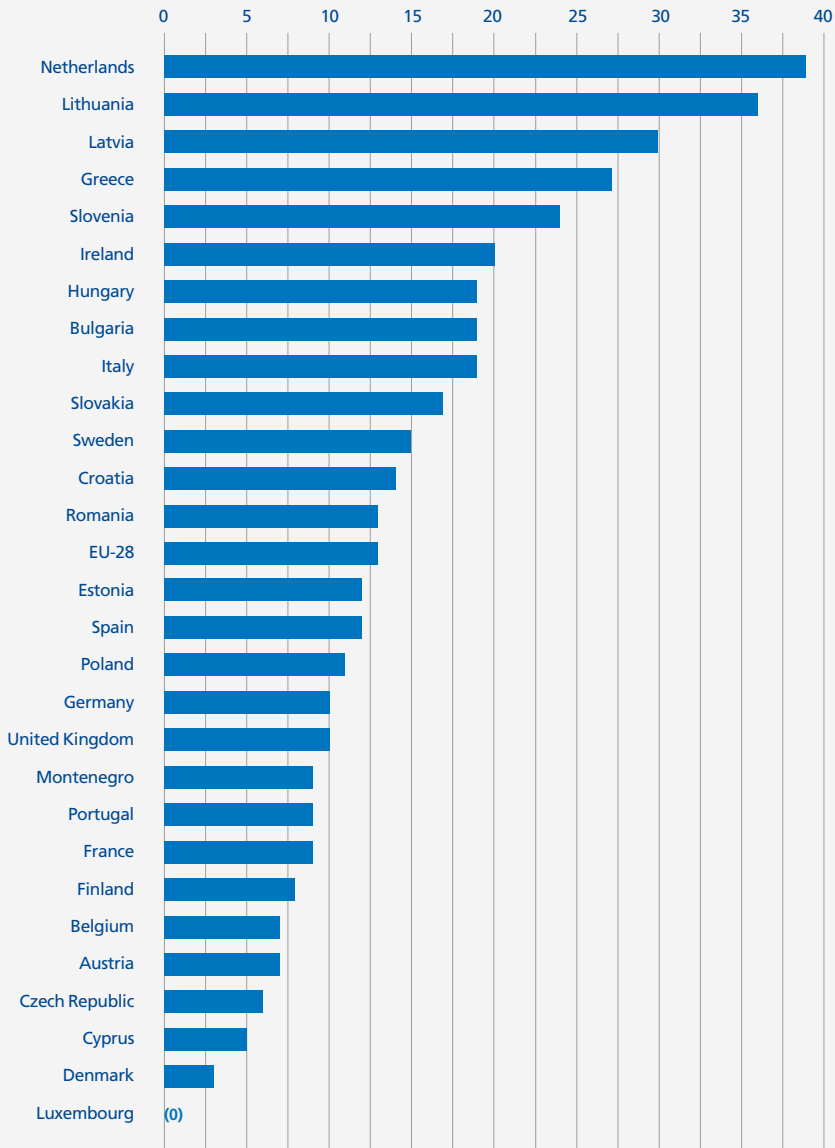
²⁰ The OECD notes that “while bankruptcy data over time are broadly indicative of the cash flow situation of enterprises, it should be highlighted there are differences in the length of the bankruptcy procedures between countries, so that insolvent enterprises are not declared bankrupt at the same pace.” p.42

Access to bank finance has become the most important barrier for doing business according to the World Economic Forum's Global Competitiveness Report for 2013-2014²¹. According to the latest European Central Bank (ECB 2014) survey data from April to September 2014, financing obstacles facing SMEs remain high in some countries. In the survey 32% of the SMEs in Greece, 18% in Ireland and 17% in Spain and Portugal and 14% in the Netherlands named access to finance as the most pressing problem, compared with only around 9% of SMEs in Germany and 7% in Austria. Rejection rates for credit by SMEs (Chart 8) in the Netherlands were the highest in the Euro area²². In its April 2014 Economic Survey of the Netherlands the OECD argued that 'access to finance is a major concern' as bank lending constraints on SMEs, they report are 'high' with SMEs being confronted by higher collateral requirements. The OECD also reported that 'as opposed to large Dutch firms which fared better, start-ups, high growth and innovative SMEs have encountered major difficulties in getting finance.'

²¹ http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf

²² The question asked was "If you applied and tried to negotiate for this type of financing over the past six months, did you receive all the financing you requested, or only part of the financing you requested, or only at unacceptable costs or terms and conditions so you did not take it, or you have not received anything at all?". Small and medium-sized enterprises (SMEs) are defined as having 0-249 employees.

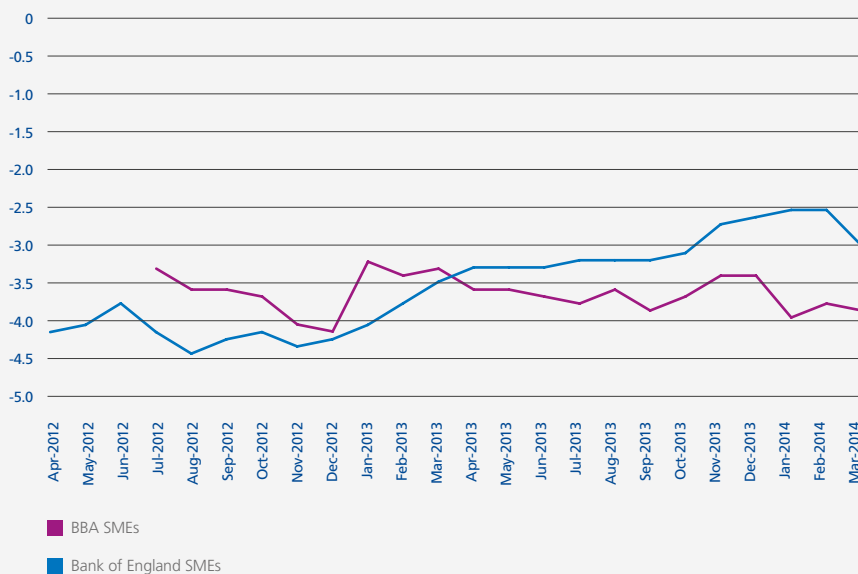
Chart 8. Flat-out rejection rates for bank loans from SMEs (%)



Source: Survey on the access to finance of entrepreneurs 2014, Figure 23

In the UK lending to SMEs has continued to decline. Chart 9 reports the percentage change in lending – which has fallen every year using data from the Bank of England’s Trends in Lending, July 2014. Data reported from the a British Banker’s panel of lenders to SME’s in Great Britain plus Bank of England data; both show annual declines. According to the Bank of England’s 2015 Credit Conditions Survey lenders expect credit availability for small firms to decrease in 2015Q1²³. Access to credit continues to be a major problem for the self-employed in most countries.

Chart 9. Lending to UK small business (% changes on a year earlier)



²³ <http://www.bankofengland.co.uk/publications/Documents/other/monetary/ccs/creditconditionssurvey150106.pdf>

In June-August 2012 just under 40,000 respondents to the Flash Barometer #54 were asked Question- 'Do you totally agree, tend to agree, tend to disagree or totally disagree with the following statements? It is difficult to start one's own business due to a lack of available financial support?' Answers in percentages were as follows.

	Totally agree	Tend to agree	Tend to disagree	Disagree		Totally agree	Tend to agree	Tend to disagree	Disagree
Austria	30	40	23	7	Latvia	54	35	8	3
Belgium	46	38	11	6	Lithuania	59	32	5	3
Brazil	73	12	7	8	Luxembourg	32	46	17	6
Bulgaria	70	19	4	7	Malta	57	22	12	9
China	36	48	11	5	Netherlands	34	41	19	7
Croatia	55	34	8	4	Norway	24	43	23	11
Cyprus	76	19	2	3	Poland	49	36	11	4
Czech Republic	27	43	23	8	Portugal	72	20	3	5
Denmark	45	38	12	5	Romania	76	15	4	5
Estonia	42	34	18	6	Russia	62	26	8	4
Finland	24	35	30	10	Slovakia	53	32	10	4
France	47	39	9	6	Slovenia	59	26	8	8
Germany	36	36	21	7	South Korea	42	46	11	1
Greece	82	14	2	2	Spain	72	20	4	4
Hungary	68	23	6	3	Sweden	39	40	12	9
Iceland	27	57	12	3	Switzerland	34	43	18	6
India	47	35	10	8	Turkey	60	20	7	13
Ireland	61	31	5	2	United Kingdom	43	42	10	5
Israel	49	32	11	8	USA	44	37	11	7
Italy	64	29	6	2	Total	50	33	11	6
Japan	31	44	20	5					

On average across these countries half of respondents said they 'totally agreed.' It is notable that more than 70% of respondents in Greece, Cyprus Portugal and Spain gave this answer. Forty three percent gave this answer in the UK, 44% in the US; 47% in France; 36% in Germany and 34% in the Netherlands. Lack of capital to finance small business still seems a major problem in most countries and especially so in those countries in Southern Europe with high unemployment rates.



5. self-employment incomes

Studies from the 1980s found that potential wages of self-employment were higher or insignificantly different from wage work (Rees and Shah, 1986 and Evans and Leighton, 1989). In subsequent work Hamilton (2000) found that most self-employed actually have lower earnings than they would get in wage work. He argued, though, that the non-pecuniary benefits of self-employment are substantial including being your own boss. Most entrepreneurs enter and persist in business despite the fact that they have both lower initial earnings and lower earnings growth than in paid employment, implying a median earnings differential in the US of 35 percent for individuals in business for 10 years. The differential, Hamilton suggest, cannot be explained by the selection of low-ability employees into self-employment and is similar for three alternative measures of self-employment earnings and across industries. Furthermore, Hamilton suggested the estimated earnings differentials “may understate the differences in compensation across sectors since fringe benefits are not included in the measure of employee compensation”. Hamilton did note that the central tendency of the distribution of self-employment returns is less than that of the wage distribution. Second, the distribution of self-employment earnings exhibits greater dispersion and is more skewed than the wage.

It is of interest then to ask why become self-employed given the self-employed experience a significant income risk, they have to work long hours despite the likelihood they could earn more in wage work? Independence is part of it. Some have argued it is because it is easy to hide your real earnings hence the reported data are just-underestimates. Hurst et al (2014) estimate, based on their expenditures, that on average the self-employed under-report their income by 25%.

Åstebro, and Chen (2014) summarize the key stylized facts regarding the returns of entrepreneurship as follows.

- Entrepreneurs earn less than employees.
- There is a larger variance and larger skew of earnings for entrepreneurs.
- A small fraction of individuals make a lot more money in entrepreneurship than in wage work.
- Entrepreneurs have a flatter earnings–tenure profile than do wage workers.
- There is both positive and negative selection into entrepreneurship.
- Entrepreneurs work more hours than do wage workers.
- Many entrepreneurs persist despite the possibility of earning more in wage work.

We know much less about self-employment earnings than we do about wages and salaries of employees, not least because most surveys of wages exclude the self-employed entirely. For example, in the UK there are three main surveys of wages and earnings, the Labour Force Survey; the Monthly Wages and Salaries Survey used to construct the national statistic Average Weekly Earnings (AWE) and the Annual Survey of Hours and Earnings (ASHE); all three exclude the self-employed. In the US the Employment Situation Report of the Commissioner of the BLS, published monthly, does not report self-employment earnings²⁴.

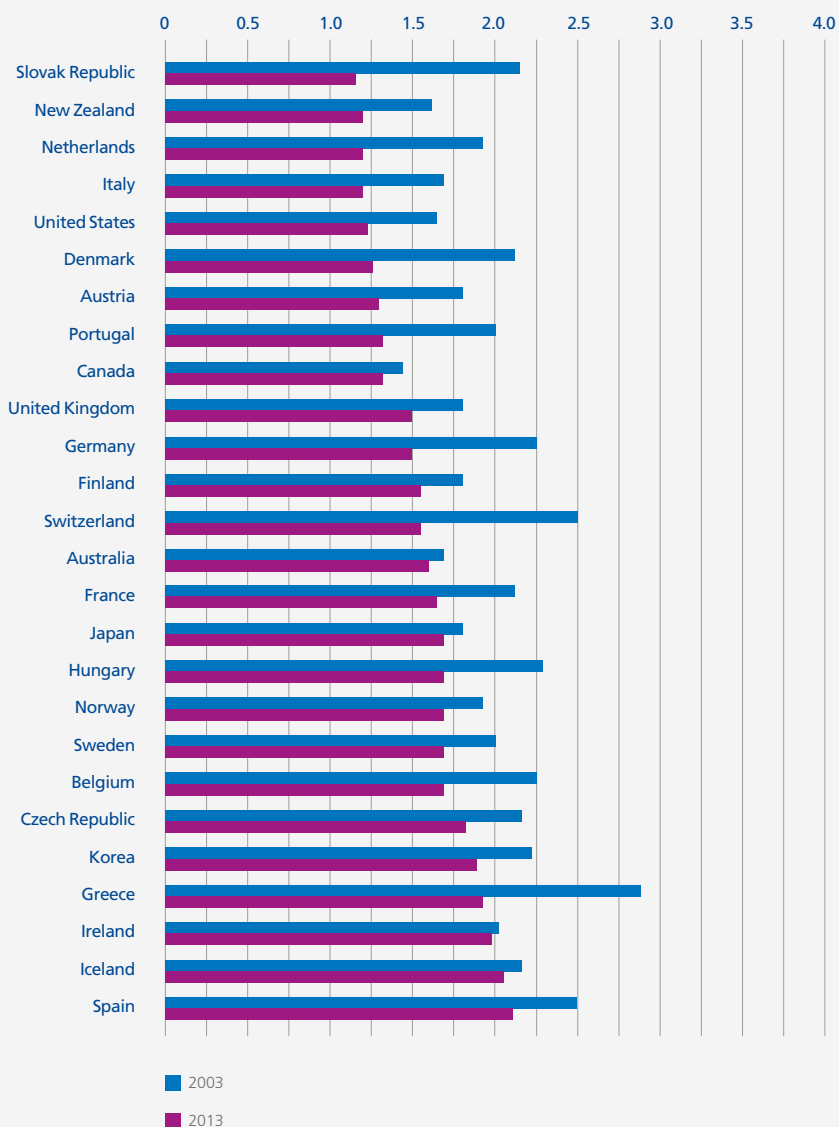
Comparisons of the total earnings of wage employees to those of self-employed individuals, using microdata from Denmark has also recently been reported by Åstebro et al (2014). Their analysis is based on a 10-percent random sample of all employees and entrepreneurs in 1995, but is then conditioned on individuals whose tenure at their job is at least ten years in order to compare individuals who would be presumed to have a good match to their job. They report a very high dispersion of earnings among the self-employed, including a large number of individuals whose earnings are lower than that of the typical wage employee. The authors suggest the presence of compensating differentials, where some entrepreneurs seem willing to persistently take lower earnings in return for the non-pecuniary benefits associated with self-employment. This may, of course be because the self-employed are able to under-report their incomes to tax authorities (Engström and Holmlund, 2009; Johansson, 2005 and Hurst, Li, and Pugsley, 2014). On the other side OECD (2014) argues that social security systems can exert a negative influence on entrepreneurship because relative to employees, self-employed people may pay more for the same benefits (e.g. paying for both the employer's and employee's contributions); receive fewer benefits for the same costs (e.g. lower pension benefits); be ineligible for certain benefits (e.g. unemployment insurance); have difficulty working with complex systems (which the employer would normally deal with); fear losing existing benefits; have changed benefits around maternity and childcare; and face requirements to contribute to systems for longer before being eligible for benefits.

²⁴ <http://www.bls.gov/news.release/pdf/empisit.pdf>. It should be noted that each year in the March supplement to the Current Population Survey workers are asked to report their self-employed earnings over the preceding year.

In a recent paper for Germany Hopp and Martin (2014) reported using data of the German Socio-Economic Panel, found that German self-employed people had average monthly earnings that 'are considerably higher than those of wage-employed workers'. They found, however, that there are considerable selection effects as people with self-employed fathers and a higher formal qualification are more likely to be self-employed. They applied an endogenous switching regression model in order to explore the causal relationship between income and individual occupational choice. They separated the whole income differential into a treatment and a characteristics effect. The results show that self-employed people in Germany could earn even 2 percent more if they switch into wage-employment. So this wage differential in self-employment was driven by differences in personal characteristics. This may have something to do with the fact that it is difficult to set up a business in Germany. According to the World Bank's Doing Business rankings (<http://www.doingbusiness.org/rankings>), Germany ranks 114th, one ahead of Bangladesh and one behind the Dominican Republic in its ranking on ease of starting a small business. New Zealand ranks first, Canada second, the UK 45th and the USA, 46th. Germany is the lowest ranked OECD country behind Chile (59th) and Mexico (67th). Chart 10 taken from the OECD's Entrepreneurship at a Glance, 2014 though suggests that the barriers to entrepreneurship have fallen in every country between 2003 and 2013 and especially so in Germany.

Gindling et al (2014) estimate earnings premium or penalty associated with self-employment for each worker in 67 countries around the world. They find no evidence of systematic earnings penalties for self-employed workers in low- and middle-income countries; if anything, they argue, 'the self-employed earn a premium in low-income countries'. On the other hand, the authors find 'the vast majority of workers in high-income countries earn a self-employment earnings penalty'. In low- and middle- income countries, self-employment earnings premiums are largest for poorly educated workers. The authors find that workers are more likely to face a self-employment earnings penalty if property rights are well-enforced and if credit markets are more regulated. Labor market regulations have no consistent relationship with self-employment earnings premiums. This may have been true pre-recession but it appears to no longer be correct.

Chart 10. Barriers to entrepreneurship (0 = lowest)



Source: Entrepreneurship at a Glance, 2014 - OECD

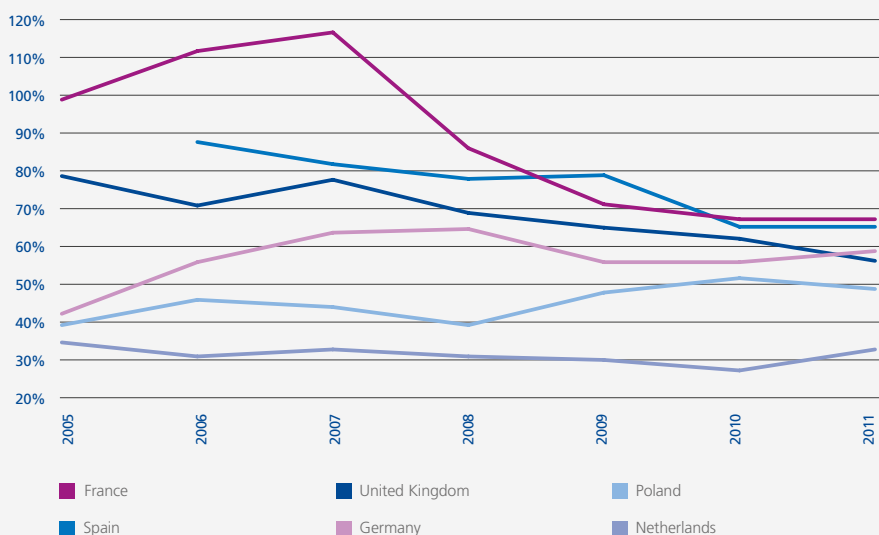
Hatfield (2015) sensibly noted that the earnings of self-employed workers ‘tend to be more volatile than the earnings of employees. In part, this illustrates the greater resilience of self-employed workers during a downturn, as we have discussed. However, self-employed workers are not guaranteed a national or sectoral minimum wage, unlike employees in most European countries, and may even have a negative income in the early stages of setting up or when their business is performing poorly. Furthermore, self-employed workers were much less likely to have contributed to a national pension than employees and often don’t have access to the same employment rights as employees. For these reasons, Hatfield argues, “self-employed workers are at greater risk of financial insecurity than their employee counterparts.” Of interest is Hatfield’s finding that in the UK the relative position of self-employed worker’s earnings has weakened sharply over the period 2005-2011. A median self-employed worker, she reported, now earns 55 per cent of what the median employee earns, a fall of 22 percentage points since 2007.

Of the countries in Hatfield’s (2015) study, France had the sharpest relative fall in the relative earnings of the self-employed at the median (Chart 11). However, uniquely among this group of countries, in France the median self-employed worker was actually earning 17 per cent more than the median employee in 2007. In the other featured countries, self-employed workers earned less than employees even before the recession. In Germany, the earnings of the median self-employed worker dipped to 54 per cent of the median employee’s earnings in 2009, but have since been increasing slowly, so that the most recent data (for 2011) shows that the median self-employed worker now earns a slightly higher share of the median employee wage than in the UK. She concludes

“While over the long run self-employed earnings are usually poorer than employee earnings, the recent trend may indicate a significant fall in living standards for the self-employed, and in countries such as the UK, which have seen a marked rise in the proportion of self-employed workers, this may have serious implications.”

Indeed.

Chart 11. Change in median gross weekly earnings of the self-employed as a proportion of median employee earnings (selected countries)



In Blanchflower and Shadforth (2008) we obtained data on the earnings of the self-employed in the UK for 2003/4 compared to those of employees obtained from the UK tax authority, the HMRC. This is reported in Table 35 and is consistent with Hamilton's findings regarding the shapes of the earnings distributions. The typical self-employed person, half way up the distribution is found in the category £5000-7500, whereas the typical employee has earnings in the £15,000 to under £20,000 category. The typical self-employed person is paid less than the typical employee. The self-employed earnings distribution has a longer right hand tail with nearly three times as many in the category of above 100,000. The mean employee earnings were just under £21,000, the mean self-employed earnings were just under £15,000. Similarly, Taylor (1996), using data for the UK from the British Household Panel Study for the Autumn of 1991, found that the self-employed had lower hourly earnings than employees Weir (2003), using data from the 2001/2002 FRS, found that the first four-fifths of self-employed workers in the income distribution earn less than the first four-fifths of employees, but the highest one-fifth earned more than employees.

In Table 36 I report time series data from the HMRC and Murphy (2013) on the distribution of earnings from self-employment over a fourteen year period. It is notable that there has been a major increase in the numbers above 100,000, but these are numerically small amounting to 35,000 individuals. There has been a rise of 150,000 individuals who have zero earnings since 2008. Richard Murphy has noted that over the first three years of the coalition's life the incomes of those earning less than 100,000 fell over this period²⁵.

	2010-11	2011-12	2012-13
Self-employed	£14,655	£15,088	£14,681
Self-employed excluding those making >100,000	£10,310	£10,381	£10,276
Self-employed earning >100,000	£261,456	£264,211	£263,830

Murphy notes the following in relation to the earnings of the UK self-employed. First, if mean pay is about £20,000 then 91.5% of self-employed people earn mean pay or less. Second, if two thirds of median pay is a measure of poverty (or £15,000 or less here, at least) then 84% of the self-employed would be in poverty based on their self-employed earnings and 77% are based on total income. Third, the top 1.7% of self-employed earners make 30.7% of all self-employed profits. And the average earnings of a person in the top 1.7% income bracket of self-employed people makes 25.5 times more than the average for all other self-employed people.

This is consistent with the findings of Blundell et al (2014) who reported, using data from the Family Expenditure Survey, that there was an increase in the UK in the proportion of self-employed workers at the lower end of the earnings distribution since 2008. This they argue suggests that 'an increasing proportion of self-employed workers would be better off as employees and thus that at least part of the reason why they are self-employed may be because they cannot find appropriate employment.'

²⁵ <http://www.taxresearch.org.uk/Blog/2015/01/30/the-self-employeds-income-new-data-shows-77-are-in-poverty/>

D’Arcy and Gardiner (2014) examined the Family Resources Survey (FRS) and found that the weekly earnings of typical self-employed people appear to have been hit far harder than those of employees, who themselves have experienced unprecedented falls. In 2011-12, the earnings of the median self-employed worker were 20 per cent lower than in 2006-07. Over the same period, employee earnings fell by 6 per cent; self-employed earnings were already falling in 2006-07 and continued to do so until 2010-11. This differs from the experience of employees at the median, where earnings were flat between 2006-07 and 2009-10 before falling. As a result of these trends, the typical self-employed person earned 40 per cent less than the typical employed person in 2011-12; in 2006-07, the gap was 28 per cent. In a recent paper the UK Office for National Statistics (ONS) ‘Self-employed workers in the UK – 2014’ also examined the earnings of the self-employed using more recent data from the Family Resources Survey. This is reported in Table 37, and shows that since 2009 real self-employed earnings fell by 22%. In the most recent year for which we have data available, 2012/13 they fell by 12%.

D’Arcy and Gardiner (2014) speculate on the reasons why self-employed weekly earnings have fallen so sharply. One possible explanation, they argue, concerns the ability of the self-employed to respond more flexibly to low demand. “Employee earnings may have held up during the crisis years as many employees lost jobs and were taken out of earnings altogether (and so did not drag down the median), whereas, as we have seen, the self-employed have the flexibility to stay put and make do with less. The slight bounce in median self-employed earnings in 2011-12 would seem reasonable in this context, as the earnings of those who had stuck around began to pick up after a few years of struggle.”

A second, but related, factor, concerns the hours that people are working. Part-time working has grown faster for the self-employed in recent years. There is some evidence that this has acted as a drag on earnings. The earnings decrease is slightly smaller when looking just at the full-time self-employed, or just at the part-time self-employed, which suggests that part of the earnings collapse relates to a growing tendency among the self-employed to work fewer hours. However, even when the authors isolated their analysis to full-time workers there remains a clear distinction between the self-employed and employees: earnings of full-time self-employed people fell 18 per cent between 2006-07 and 2011-12, compared to just 5 per cent for full-time employees. Of course, changes in the precise number of hours within the full-time group, D’Arcy and Gardiner suggest, ‘may further explain the relative difference’.

Finally, the authors argue, other changes in the composition of self-employed workers – towards lower-paying sectors or within lower-paid age groups, for example – might explain the relatively large decline in self-employed earnings since 2006-07. We know that those aged over 50 (whose earnings are below average) have been growing as a share of the self-employed, although they have also been growing among employees. And we know that women (whose earnings are lower than men's) now make up more of the self-employed than they did in 2006-07, while female employee levels have been flat. In terms of sectors, we have seen that self-employment has grown strongly in both higher-paying sectors, such as real estate and business activities, and lower-paying ones, such as health and social work. The picture looks mixed, but it is likely that the changing composition of the self-employed workforce explains some of the median earnings collapse.

For the majority of people in the UK, self-employment conveys very low earnings. For some people it is a highly paid activity but for the majority it is low paid activity. Approximately 40% of self-employed workers in the UK earned less than £5000 in 2011/12 and 18% earned less than £1000 and 12% earned zero or made losses. Self-employment for most people is a low paying activity.

The OECD (2014a) calculates that in 2012 women in the EU earned EUR 18,000 as an employee and just under EUR 14,000 if they were self-employed. Women who worked as employees earned more than those who were self-employed in all member states except for France, Hungary, Luxembourg, Netherlands and Sweden. There was very little difference in the earnings of women who worked in employment or self-employment in Bulgaria, the Czech Republic, Germany and Hungary. The ratios were as follows

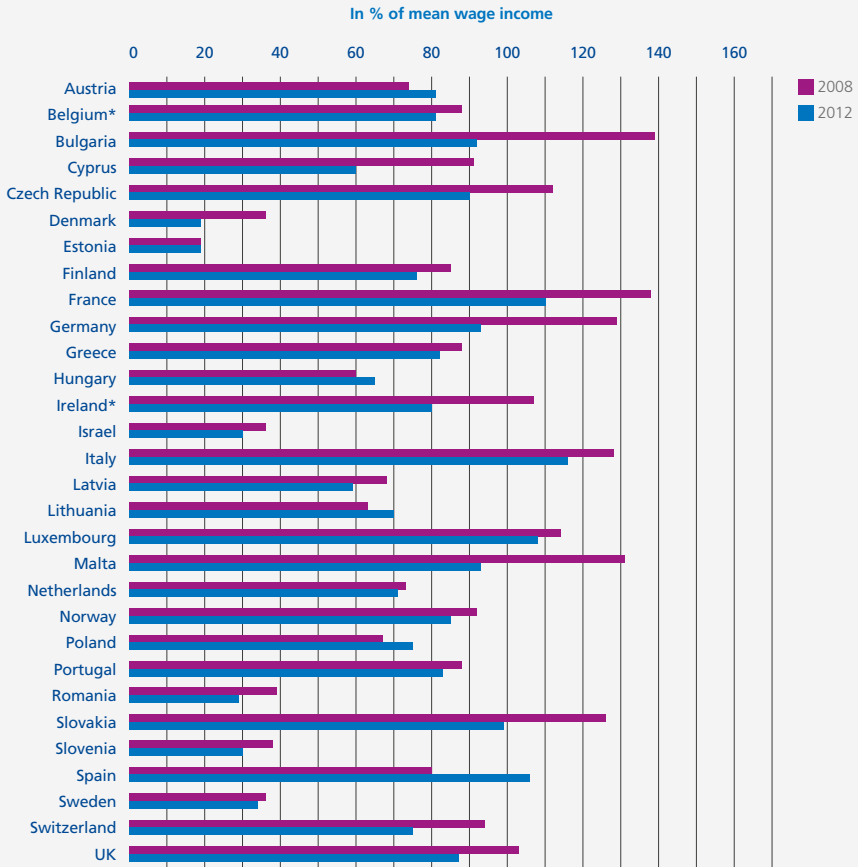
Bulgaria	102	Germany	101	Poland	68
Croatia	97	Greece	73	Portugal	73
Cyprus	89	Hungary	109	Romania	42
Czech Republic	102	Italy	93	Slovak Republic	89
Denmark	83	Latvia	87	Slovenia	74
Estonia	76	Lithuania	71	Spain	75
EU28	78	Luxembourg	110	Sweden	103
Finland	92	Malta	93		
France	105	Netherlands	103		

OECD (2014a) also found that net median self-employment income for men and women for full-time labour market activities was broadly comparable across countries.

Table 38 reports self-employment earnings by year using data from the European Union's Survey on Income and Living Conditions (SILC) taken from Bell and Blanchflower (2015). The reference population of SILC is defined as all private households and all persons aged 16 and over within the household residing in the territory of the Member States at the time of data collection. Persons living in collective households and in institutions are generally excluded from the target population. The data refer to 'cash benefits or losses from self-employment. We only include individuals who report positive values. Self-employment income is defined as the income received, during the income reference period, by individuals, for themselves or in respect of their family members, as a result of their current or former involvement in self-employment jobs. Self-employment jobs are those jobs where the remuneration is directly dependent upon the profits (or the potential for profits) derived from the goods and services produced (where own consumption is considered to be part of profits). The self-employed make the operational decisions affecting the enterprise, or delegate such decisions while retaining responsibility for the welfare of the enterprise. (In this context "enterprise" includes one-person operations). The remuneration of hobbies shall be regarded as self-employment! Estimates are reported in local currencies.

It is apparent from the table that there have been rapid declines in self-employment earnings since 2008. In approximately half the countries nominal self-employment earnings rose, e.g. Austria, Belgium, the Netherlands and Spain. In others, especially Denmark, Greece, Switzerland and the UK they fell sharply. To place these results in context Table 39 expresses self-employment earnings as a percentage of wages and salaries. In all of the thirty one countries the ratio of the means declined between 2008 and 2012 or the latest date available. For example in the UK the ratio fell from 103% to 87%, while in France it fell from 138% to 110%. The exceptions are Austria, Hungary, Lithuania, Poland and Spain which saw increases in the ratio. The typical self-employed worker is paid less than the typical employee in every country. This ratio also declined as the Great recession took hold and output fell and unemployment increased. It appears that across Europe self-employment incomes generally declined more than wages and salaries during the Great Recession.

EU: Mean earnings self-employed



* Latest available data 2011

Source: Bell and Blanchflower, 2015

Incorporated and unincorporated self-employment in the US

The incorporated self-employed are paid wages and are much more likely than the unincorporated self-employed to have paid employees. A smaller proportion are African-American or Hispanic and they have higher levels of education than the unincorporated (Hipple, 2010). For tax purposes, the IRS defines workers as self-employed if they: (1) carry on trade or business as a sole proprietor or independent contractor, (2) are a member of a partnership that carries on trade or business, or (3) are otherwise in a business for oneself. Self-employed workers pay income taxes, the same as wageworkers, but they also pay a self-employment tax equal to the social security and Medicare taxes paid for wageworkers. Self-employment businesses can be either unincorporated, such as sole proprietorships, or incorporated, such as C and S corporations. Incorporated businesses exist as entities legally separate from their shareholders or members. Corporations hold many of the same legal rights as individuals, such as the right to bring lawsuits, buy and sell property, enter into contracts, and the obligation to pay taxes. One of the primary advantages of incorporating a self-employment business is that it limits the shareholders' liability for the business' debts and obligations. In addition, incorporated businesses have the advantages of unlimited life, transferability of ownership shares, the ability to raise investment capital through selling securities, and, in some cases, tax benefits. (<http://www.census.gov/prod/2013pubs/acsbr11-21.pdf>)

Table 40 shows US annual, weekly, and hourly earnings (measured in 2013 dollars) of workers in 1993 and 2012, by employment sector and gender from Roche (2014) using data from the Current Population Surveys Annual March Supplements. All worker groups experienced an increase in earnings over the period 1993-2012, as Roche (2014) notes, albeit to a different degree. On average, self-employed women in both full- and part-time jobs experienced the most dramatic increase in mean earnings. Between 1993 and 2012, self-employed women working full time increased their mean annual earnings by 32 percent, their mean weekly earnings by 39 percent, and their mean hourly earnings by 53 percent. The percent increases were even steeper for part-time self-employed women; these female workers increased their mean annual earnings by 51 percent, their mean weekly earnings by 64 percent, and their mean hourly earnings by 52 percent. Wage and salary women also experienced considerable gains in earnings, although their percent increases were about half those of self-employed women. Of note though is the very small increase for self-employed men only 7% growth in annual earnings for full-time self-employed compared with 19% for full-time male wage and salary workers.

In a recent paper Levine and Rubinstein (2013) made use of the March Supplements of the Current Population Survey (CPS) and the National Longitudinal Survey of Youth, 1979 (NLSY79) to study the earnings of the incorporated and unincorporated self-employed in the US. They found that the incorporated self-employed tend to have been successful salaried workers before becoming incorporated self-employed and enjoyed a significant boost in earnings when they become entrepreneurs. The results were very different for the unincorporated self-employed. People that become unincorporated self-employed during their careers, the authors argued, tend to earn less as salaried workers than comparable salaried workers that never become self-employed. While there is positive sorting on salaried earnings into incorporated self-employment, it is the comparably unsuccessful salaried workers that sort into unincorporated self-employment.

Levine and Rubinstein final conclusions are worth quoting in full

“The incorporated have a very distinct mixture of cognitive, non-cognitive, and family traits that differs from those of unincorporated and salaried workers. The incorporated tend to be better educated, and more likely to come from high-earning, two-parent families. Furthermore, as teenagers, the incorporated tend to have higher learning aptitude and self-esteem scores and engage in more aggressive/risky behaviors than salaried employees. But, apparently it takes more to be a successful entrepreneur than having these strong labor market skills: the incorporated self-employed also tend to engage in more illicit activities as youths than other people who succeed as salaried workers. It is a particular combination of traits that seems to matter for both becoming an entrepreneur and succeeding as an entrepreneur. It is the high ability (as measured by learning aptitude and success as a salaried worker) person who tends to “break-the-rules” (as measured by the degree to which the person engaged in illicit activities before the age of 22) who is especially likely to become a successful entrepreneur. For many characteristics, the unincorporated tend to be on the other side of the distribution from salaried employees. ...Incorporated self-employment offers a higher probability of enormous returns to individuals with particular cognitive, non-cognitive, and family traits. When the incorporated self-employed succeed, they tend to do much better than successful salaried workers.”

To explore the size of self-employed incomes further and their responsiveness to changes in economic activity I examined data for the United States taken from the 2005 through 2013 American Community Surveys, conducted by the US Census Bureau. It asks respondents to report on their self-employment and wage income in the preceding twelve months. In both cases when there are missing values it imputes estimates. In what follows I exclude all of the imputations. The estimates of self-employment income will include income from self-employment as both a main and secondary activity so I limit the sample to those who report their current status is self-employed. I include individuals who say they are making losses but exclude those who say their self-employment income is zero. It is possible to identify unincorporated self-employed, who report their self-employment income as well as incorporated self-employed who report wage and salary income. Data is also available for those who are wage and salary workers. It should be noted that there is an issue in the ACS because of large numbers of missing values on earnings questions, so the Census Bureau imputes estimates. I decided to exclude such individuals.

In Table 41 I report the number of individuals with imputation and without it along with average earnings in each of the three categories – self-employed unincorporated; self-employed incorporated and wage and salary. Three main points stand out. First, the earnings of the unincorporated self-employed were broadly in line with wages and salaries at the onset of recession but are no longer. On average in 2013, they earned 20% less than wage and salary workers. Second, the incorporated self-employed are paid, on average more than twice that of the unincorporated. Third, by 2013 the earnings of the unincorporated self-employed were still 2% below the levels in nominal terms in 2008. Between 2008 and 2013 the consumer price index (CPI) rose by around 8.2% over these years this is a sharp fall of around 10% in real earnings. In the case of the incorporated self-employed they were up 7.8%, so roughly flat in real terms. Wage and salary workers saw a rise of 9.5%, up in real terms by just over 1%.

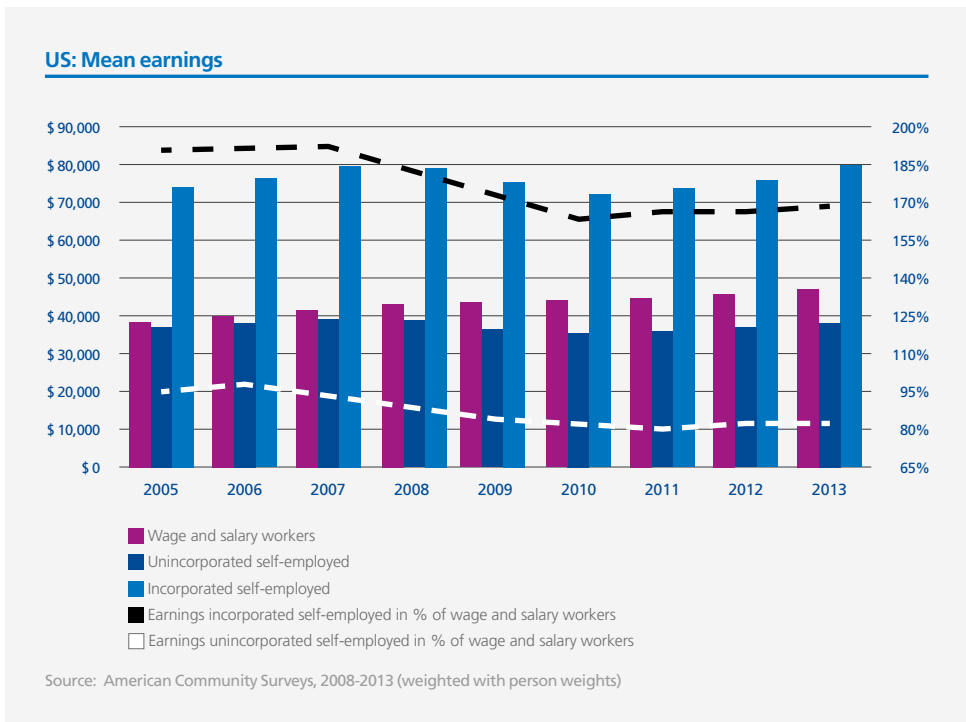


Table 42 uses econometric methods to examine these US earnings data from the American Community Surveys. It reports the results of estimating wage curves, following Blanchflower and Oswald (1994, 1996) for the survey years 2005-2013. The dependent variable is the log of earnings regressed on a set of control variables, including age, gender and schooling plus a full set of state and year dummies. It includes the log of the state by year unemployment rate, obtained from Local Area Unemployment Statistics (<http://www.bls.gov/lau/>) at the Bureau of Labor Statistics²⁶. The unemployment rates that are mapped in refer to the previous year as the wage and self-employment data refer to the previous year. We are looking here to see the flexibility of wage and self-employment earnings to changes in the self-employment rate.

Column 1 regresses the log of the annual wage on the log of the unemployment rate, on a sample size of nearly 10 million workers, and finds, as Blanchflower and Oswald do, an unemployment elasticity of pay of around -0.1. That implies if unemployment doubles, real wages fall by 10%. The second column estimates a similar equation but this time restricted to the incorporated self-employed who receive wages. The unemployment elasticity here is now -.2, suggesting, unsurprisingly that the, generally higher paid self-employed who run an incorporated business have more flexibility in their wages than employees. The final column includes the unincorporated self-employed and relates to individuals with positive self-employed earnings. The elasticity here is close to -.3, suggesting their earnings are the most flexible of the three groups. Of note also is that the size of the race effects is much larger for both self-employed groups. The differences, for example, between black and white earnings are twice as large, as for wage workers. It is notable that Asians have lower wages than whites, but higher self-employed earnings, holding constant characteristics. US self-employed earnings are more responsive to movements in the unemployment rate than is the case for wages and salaries.

The typical self-employed worker is paid less than the typical employee both before and after the recession. This is consistent with the findings of Loftstrom (2013) who finds that wage/salary employment in the US 'is a more financially rewarding option for lower skilled workers'. The difference between self-employment earnings and wages widened markedly during the recession. In most countries mean as well as median earnings of the self-employed are lower than the equivalent earnings of wage and salary workers. The main exceptions are France, Italy, Luxembourg and Spain. In the UK mean earnings were higher in 2010 but lower by 2012. It also appears that earnings of the self-employed are more volatile than the earnings of wage workers. They have dropped precipitously in most countries studied between 2008 and 2012 both in nominal and real terms and in relation to wage and salary earnings.

²⁶ <http://www.bls.gov/lau/rdscnp16.htm>

6. summary

My major findings are as follows.

- The number of self-employed in the EU28 has remained broadly flat since the start of the recession but has fallen slightly in the Eurozone. Countries with the biggest numerical increases were the UK; France and the Netherlands (+257k). Big falls were found in the countries with large increases in unemployment and especially in Italy; Greece, Portugal and Spain. The number of incorporated and unincorporated self-employed combined in the USA fell by around a million.
- The probability of being self-employed is higher for men than for women and rises approximately linearly with age.
- The probability of being self-employed is especially high among craft occupations; wholesale and retail trade and in agriculture. For men self-employment rates are high in construction.
- The picture is much more mixed across countries in terms of whether foreigners have higher self-employment rates than the native born as well as by levels of education.
- Across the EU28 the number of self-employed is broadly constant. There have been sharp rises in the UK and the Netherlands and sharp falls in Greece, Spain and Portugal.
- The rise in SERs in the Netherlands and the UK is broadly based with rises seen for both men and women, across all age groups as well as for foreigners and the native born and for the higher education groups. There were falls in the number of self-employed in both countries in the lowest education group of elementary occupations. The rise in both is entirely confined to self-employed without employees; in both countries there have been falls in the proportion of employment accounted for by the self-employed with employees.
- Self-employment as a proportion of total employment has generally fallen across countries since the Great Recession while self-employed without employees has risen slightly across the EU28.
- Self-employment rates are higher in less developed countries. Self-employment rates are negatively correlated with GDP per capita in rich countries and positively correlated in poorer countries.

- Self-employment rates are positively correlated with unemployment rates.
- Around 43% of respondents across a large sample of 40 countries report they would like to be self-employed. It appears that the main reason for saying so is for independence and because of the freedom to choose the place and time of working. 'Better income prospects' are less important than independence in every country.
- The self-employed report higher levels of job satisfaction, life satisfaction and happiness.
- Self-employed with employees are especially happy although they report being more stressed than those without employees.
- Capital constraints appear to be important factors in the ability of individuals to become and remain self-employed.
- The self-employed are disproportionately underemployed, indeed they are self-underemployed. The percentage of the self-employed wishing to work more hours is especially high in the Netherlands, UK and France, and has seen a sharp increase in all three countries between 2007 and 2012 (Hatfield, 2015, Figure 4.4)²⁷.
- Self-employment incomes on average are below those of employees. There is evidence that during the Great Recession these have fallen more sharply than wages and salaries. Real incomes of the self-employed are sharply lower than they were pre-recession in almost every country studied.
- A very high proportion of the self-employed earn hardly anything. In the UK 21% had annual earnings of less than £1000 in 2012-13. Unlike wage and salary workers, some self-employed report negative earnings or losses.
- Self-employed earnings appear to be more responsive to changes in the movements of the business cycle than are wages and salaries.

²⁷ The data are for 2007 and 2012 Netherlands 9% and 13%; UK 8.5% and 11% and France 6.5% and 8.5%.

7. conclusions

Across advanced countries I find no evidence that a higher self-employment rate at the onset of the Great Recession was better to grow out of the recession. Indeed, I found evidence of quite the reverse. Advanced countries with higher self-employment rates in 2007 had lower growth rates by 2014, and vice versa. Quite the reverse was the case in developing countries. Self-employment rates appear to be positively correlated with unemployment rates. More self-employment may not be better.

The self-employed are either pushed or pulled to work for themselves. Push factors are those that push individuals into self-employment due to lack of alternatives while pull factors are those that provide incentives for individuals to become self-employed (Benedict and Hakobyan, 2008). It is likely that a considerable proportion of those who have recently become self-employed in the Great Recession have done so because of 'push' factors, driven out of wage work because of a lack of jobs and possibly from unemployment because of incentives to do so in the welfare system. In many countries self-employment is an alternative to public sector employment, especially in the health and education sectors. In the UK employment in the public sector has declined by about the same amount as self-employment has increased since 2010. Push self-employment is more likely to occur when unemployment is high.

In good times 'pull' factors tend to become more important; demand is booming and a currently employed person thinks 'I can do that' and sets up his or her own business. The reason for being able to do this is demand is booming and there are opportunities for all. Those who are 'pulled' to self-employment, who make a positive decision to go it alone, frequently after a long planning period, perhaps during which they are able to raise enough capital to go it alone, are generally much closer to our idea of an entrepreneur, the job creator who made a job for him or herself and potentially down the road, will create jobs for others. Pull self-employed frequently are job-makers. Pull self-employment is more likely to take place when unemployment is low.

Between 2008Q1 and 2014Q3 employment of those ages 15 and over in the European Union fell by around 1 million (Table 3a); whereas employment was down by just over 3 million in the Eurozone. The numbers of employees as well as the numbers of self-employed were also down in both areas over this period. Eleven EU28 countries had employment levels higher than they were at the start of the recession²⁸, while sixteen of them had higher self-employment levels²⁹. Self-employment rates were flat in the EU but down in the Eurozone.

²⁸ Austria; Belgium; Croatia; Czech Republic; Finland; France; Germany; Hungary; Luxembourg; Malta; Poland; Sweden and the UK

²⁹ Austria; Belgium; Czech Republic; Estonia; Finland; France; Germany; Lithuania; Luxembourg; Malta; Netherlands; Poland; Slovakia; Slovenia; Sweden and the UK

The collapse in the number of the self-employed is especially notable in Italy (-521k); Spain (-411k) Portugal (-340k) and Greece (-230k). Of particular note are France and the Netherlands which had declines in the numbers of employees but increases in self-employment (+312k and +257k respectively). Indeed they rank second and third respectively, behind the UK (+628K), that had increases in both the number of employees as well, in the scale of the increase.

In the US employment is approximately two million higher than it was at the start of the Great Recession but the employment rate is still below its starting level; it was 62.9% in January 2008 compared with 59.3% in January 2015. The number of unincorporated³⁰ self-employed is down in the US from 9,876,000 in January 2008 to 9,315,000 in January 2015 while the number of incorporated self-employed fell from 5,705,000 to 5,483,000³¹. So US self-employment is down by nearly 800,000 since the start of the recession. This is somewhat surprising given the introduction of the Affordable Care Act, known as Obamacare, which meant firms had to provide their employees with more benefits, hence there was some expectation that self-employment rates might rise as a lower cost alternative.

The Netherlands and the UK are of particular interest given their large increases in self-employment as well as in their self-employment rates³². This occurred despite the fact that in both countries self-employed earnings at the median are much lower for self-employment (Table 39). In both countries it is apparent that this increase has mostly been among more highly educated groups and in professional occupations. Both of these countries have seen sharp declines in union density. The OECD shows that in the Netherlands the proportion of workers who were members of trade unions fell from 42% in 1960 to 23% in 2000 to 18% in 2013, whereas the UK density rate fell from 39% in 1960 to 30% in 2000 to 25% in 2013³³. In part this high incidence of self-employment may have arisen because of the high levels of protection of permanent workers against individual dismissals.

³⁰ See Box page 67

³¹ Estimates of incorporated self-employed are only available not seasonally adjusted

³² <http://www.bls.gov/cps/lfcharacteristics.htm#self>

There is some recent evidence from the UK that the number of self-employed has started to fall, and is down from 4,608,000 in April-June 2014 to 4,520,000 in September-November 2014. Source; UK Labour Market, January 2015, ONS, Table 3.

³³ <http://www.oecd.org/employment/emp/onlineoecdemploymentdatabase.htm>

According to the OECD Indicators of Employment Protection Legislation in 2013 the Netherlands ranked third highest in the OECD after Germany and Belgium in terms of protections against individual and collective dismissals (Chart 12). Self-employment in the Netherlands likely provides additional labor market flexibility for firms as a consequence of it being difficult to dismiss permanent workers. This occurred in the face of weaker worker bargaining power due to the declining importance of trade unions, which is likely also the case in the UK. France has also seen growth in its self-employment rate along with a decline in union density from 20% in 1960 to 8% in 2013, although bargaining coverage still remains high. This appears to have been impacted by some of the labor market reforms including the modernization of the 'portage salarial' in 2008 which created a way to be self-employed but with the benefits of a wage-worker. OECD (2014a) has also argued that financial grants used in France have improved survival rates for businesses started by the unemployed to be nearly on-par with the overall business survival rate (72% after 3 years vs. 79%).

Self-employment is an inherently risky venture. The self-employed don't have any employer benefit package, which means that it's going to be hard to go on vacation, take a day off, or even stay home sick without losing income. It also means that in many countries they have to provide their own health insurance and retirement plan. IDEA (2015) have noted differences in the rights of the self-employed in terms of their access to unemployment benefits; sickness benefits; pension benefits; access to healthcare and maternity leave. For example among European countries, only in Poland, Romania and Slovenia are conditions of access to unemployment benefits the same as those of employees with permanent contracts. Workers face less favourable conditions of access to sickness benefits in all EU countries, and to healthcare in Greece; France; Belgium, Switzerland and Austria.

The typical self-employed is paid less than the typical wage and salary worker. Indeed, there does appear that the vast majority of workers in high-income countries earn a self-employment earnings penalty. The surprise is that many self-employed are paid very little. In the UK, for example (Table 36) 22% earned less than £1000 (US\$1500) per year and 65% earned less than £10000 (US\$15,000). Plus the Great Recession hit self-employed earnings especially hard. For example, in Germany the relationship between mean self-employment earnings and mean wage and salary earnings fell from 129% in 2008 to 93% in 2012. At the median the change was from 93% to 67% (Table 39). Self-employment earnings in the UK, for example are down 22% since the onset of recession (Table 37) and 12% in the latest for which we have data.

Despite these lower wages, the self-employed are more satisfied with their jobs than employees, in large part, it seems, because of the independence it brings, along with their ability to set their own work timetables. Avoiding commuting may be a major benefit, which it turns out is a major source of unhappiness (Kahneman et al, 2004). If necessary they can work longer hours to make up for lost earnings; several London taxi drivers told me they can maintain their earnings but now they have to work 60 hours a week to make the same money they made pre-recession in 40. But they have the flexibility to vary their work hours upwards if they would like³⁴. The self-employed are especially optimistic about the future plus they are highly positive about their lives. This is especially true of the self-employed with employees, who are generally higher paid than those without employees. However, the self-employed with employees report that they have a poor work-life balance. Having employees is stressful.

The barriers of entry for the new self-employed (who sell skills and expertise rather than products or goods), whether they are push or pull, are probably lower than those of conventional self-employed as they seem to need few assets. This is certainly true of this author whose business has no assets at all other than me! Typically, there is not much more investment than a computer, a telephone, a car, or in some industries some specific small tools. It is pretty easy for these new self-employed to transfer back to being a wage worker when the opportunity arises or if the cash flow dries up. There is not always a need for a business plan, because external funding is not always necessary. They are not capital constrained but in the end may go out of business simply because the demand to their skill drops or their clients pay too slowly. Therefore, the probability of self-employment out of necessity is greater within this group of new self-employed. These new self-employed often perform similar work under similar conditions as employed persons but the risk of disguised unemployment is greater due to the lack of work. The suspicion is in the Great Recession push factors dominated, especially given that growth was almost exclusively in self-employment without employees.

But despite the lower earnings the highly educated may choose to remain self-employed as they enjoy the independence it brings, plus when the economy improves it would be expected their earnings would probably improve. What about the self-employed with low skills and/or lower levels of education? Here workers may have been fired from wage work stuffing teddy bears and rehired on a self-employed basis, possibly to get around the minimum wage and high cost on benefits. Often they have to claim in-work benefits including housing benefits as they earn so little. The low-skilled push group were never entrepreneurs and don't want to be either.

³⁴ In the UK the top three job roles for the self-employed in 2014 were construction and building trades (167,000); taxi and cab-drivers and chauffeurs (166,000) and carpenters and joiners (144,000).
http://www.ons.gov.uk/ons/dcp171776_374941.pdf

The concern is that a good deal of the growth in self-employment among the least skilled is what McKay et al (2015) have called bogus self-employment. The OECD (2014b) calls it dependent self-employed³⁵ who are own-account self-employed – i.e. independent contractors without employees who either autonomously produce and sell goods or engage with their clients in contracts for services, regulated by commercial law – whose conditions of work are nonetheless similar to those of employees, in the sense that they work mainly or exclusively for a specific client-firm with limited autonomy and often closely integrated into its organizational structure. Even though their degree of subordination is similar to that of an employee, they are usually not protected by employment protection rules because these rules do not apply to commercial contracts. In addition, they don't have the same fiscal and social protection regimes as wage-workers, which is typically less burdensome for their employers. As a consequence, the OECD argues 'this type of contracts represents another flexible and often low-cost alternative to regular, open-ended employment contracts'.

Self-employment provides flexibility to firms and is likely better than unemployment for an individual worker. The likelihood is that when more secure, higher paying, full-time, maybe even permanent employee jobs become available the 'push' self-employed will simply move to wage work which would provide them with the additional advantage of availability of pension and healthcare benefits, perhaps including child care. In the Flash Eurobarometer #354 fielded in 2012 used earlier across forty countries those respondents who said they preferred to be an employee were asked why – multiple choices were possible. The major reasons were 'job security' (28%); 'regular steady income (25%); fixed working hours (13%) and covered by social welfare/insurance (8%).

Self-employment provides a useful alternative for firms and individuals. For firms it gives them flexibility and for individuals they get independence. For the more entrepreneurial it may be the start of their road to riches and create more jobs. The concern is for many workers self-employment is nothing but an insecure, low paying job.

³⁵ Dependent self-employed workers are identified by the OECD (2014b) as own-account self-employed for which at least two of the following conditions hold: i) they have only one employer/client; ii) they cannot hire employees even in the case of heavy workload; and iii) cannot autonomously take the most important decisions to run their business. Dependent self-employment as a proportion of dependent workers – which is the sum of employees and dependent self-employed – according to the 5th European Working Conditions Survey (OECD, 2015) ranges from being insignificant in Sweden to 1.7% in the Netherlands; 1.4% in Great Britain and over 3% of non-agricultural private sector employment in the Czech Republic; Greece; Italy and Slovakia. More dependent self-employment is not obviously better.



appendix – definitions of self-employment and tables

The OECD defines the self-employment rate as “the employment of employers, workers who work for themselves, members of producers’ co-operatives, and unpaid family workers. The latter are unpaid in the sense that they lack a formal contract to receive a fixed amount of income at regular intervals, but they share in the income generated by the enterprise. Unpaid family workers are particularly important in farming and retail trade. All persons who work in corporate enterprises, including company directors, are considered to be employees. Self-employment may be seen either as a survival strategy for those who cannot find any other means of earning an income or as evidence of entrepreneurial spirit and a desire to be one’s own boss. Employed people are as those aged 15 or over who report that they have worked in gainful employment for at least one hour in the previous week or who had a job but were absent from work during the reference week. This indicator is measured as the percentage of employment.”

Eurostat defines it as follows

The European System of Accounts (ESA) defines employment as covering both employees and self-employed persons, who are engaged in some productive activity that falls within the production boundary of the system.

Employees are defined as all persons who, by agreement, work for another resident institutional unit and receive a remuneration. An employer-employee relationship exists when there is an agreement, which may be formal or informal, between an enterprise and a person, normally entered into voluntarily by both parties, whereby the person works for the enterprise in return for remuneration in cash or in kind.

Note: Employees corresponds to the International Labour Office definition of ‘paid employment’.

Self-employed persons are defined as persons who are the sole owners, or joint owners, of the unincorporated enterprises in which they work, excluding those unincorporated enterprises that are classified as quasi-corporations. Self-employed persons are classified here if they are not also in a paid employment which constitutes their principal activity: in that latter case they are classified under employees. Self-employed persons also include the following categories: unpaid family workers, outworkers and workers engaged in production undertaken entirely for their own final consumption or own capital formation, either individually or collectively³⁶.

³⁶ <http://stats.oecd.org/glossary/detail.asp?ID=779>

The United National Statistical Commission approved in 1958 the following classification:

- (a) Employer: a person who operates his or her own economic enterprise, or engages independently in a profession or trade, and hires one or more employees. Some countries may wish to distinguish among employers according to the number of persons they employ.
- (b) Own-account worker: a person who operates his or her own economic enterprise, or engages independently in a profession or trade, and hires no employees.
- (c) Employee: a person who works for a public or private employer and receives remuneration in wages, salary, commission, tips, piece-rates or pay in kind.
- (d) Unpaid family worker: usually a person who works without pay in an economic enterprise operated by a related person living in the same household. Where it is customary for young persons, in particular, to work without pay in an economic enterprise operated by a related person who does not live in the same household, the requirement of "living in the same household" may be eliminated. If there are a significant number of unpaid family workers in enterprises of which the operators are members of a producers' cooperative who are classified in category (e), these unpaid family workers should be classified in a separate subgroup.
- (e) Member of producers' cooperative: a person who is an active member of a producers' cooperative, regardless of the industry in which it is established. Where this group is not numerically important, it may be excluded from the classification, and members of producers' cooperatives should be classified under other headings, as appropriate.
- (f) Persons not classifiable by status: experienced workers whose status is unknown or inadequately described and unemployed persons not previously employed (i.e. new entrants). A separate group for new entrants may be included if information for this group is not already available elsewhere.

<http://laborsta.ilo.org/applv8/data/icsee.html>

Table 1. OECD Self-employment rates, 1956-2013 (%)

	1956	1960	1970	1980	1990	2000	2007	2013
Australia			13.9	16.0	14.4	13.5	11.9	10.3
Austria					14.2	13.1	14.4	13.0
Belgium	24.7	26.2	18.8	16.6	18.1	15.8	14.8	15.1
Brazil							30.4	27.4
Canada				9.1	9.5	10.6	9.3	8.7
Chile						29.8	28.1	26.6
Colombia							46.1	53.5
Czech Republic						15.2	16.2	18.5
Denmark			20.6		11.4	9.1	9.0	9.0
Estonia						9.1	9.0	8.6
Finland				17.2	15.6	13.7	12.6	13.6
France	34.0	30.7	21.6	16.3	13.2	9.3	9.0	9.5
Germany		22.8		11.9		11.0	12.1	11.2
Greece		68.5			47.7	42.0	35.9	36.8
Hungary						15.2	12.5	11.7
Iceland						18.0	13.7	12.0
Ireland				24.8	24.9	18.8	16.7	16.7
Israel						14.2	12.7	12.6
Italy				28.6	28.7	28.5	26.4	25.0
Japan	54.1	46.6	35.0	28.1	22.3	16.6	13.3	11.5
Korea			61.1	52.8	39.5	36.8	31.8	27.4
Luxembourg		28.7	19.8	13.5	9.1	7.4	6.0	5.6
Mexico			40.3	56.9	31.9	36.0	34.3	33.0
Netherlands				12.2	12.4	11.2	13.1	16.1
New Zealand	19.3			18.3	19.8	20.6	17.1	15.2
Norway	27.1	25.7	19.6	14.3	11.3	7.4	8.0	7.0
Poland		41.0	30.8	25.4	27.2	27.4	23.5	22.0
Portugal					29.4	26.0	24.2	21.7
Russian Federation						10.1	7.3	6.9
Slovak Republic						8.0	12.9	15.6
Slovenia						16.1	15.9	16.9
Spain			36.0	29.6	25.8	20.2	17.6	17.9
Sweden			10.9	8.0	9.2	10.3	10.6	10.6
Switzerland						13.2	11.5	10.4
UK	7.7	7.5	7.8	8.1	15.1	12.8	13.3	14.4
USA	17.5	16.1	10.2	9.4	8.8	7.4	7.2	6.6

Source: OECD

Table 2. Quarterly EU Self-employment rates, Ages 15 and over (%)

GEO/TIME	1998Q1	2000Q1	2004Q1	2008Q1	2010Q1	2012Q1	2013Q1	2014Q1	2014Q2	2014Q3
EU28				15.1	15.3	15.3	14.8	15.1	15.2	15.4
Euro area 19				15.1	15.1	15.1	14.7	14.9	14.9	15.2
Austria	11.0	10.8	12.0	11.6	11.6	11.3	11.2	11.2	11.4	11.7
Belgium		13.8	13.4	13.1	13.4	13.9	13.3	13.4	14.0	13.5
Bulgaria		12.6	12.0	11.5	11.3	10.2	10.0	11.5	11.8	12.7
Croatia				18.4	19.6	18.3	15.6	14.3	14.8	14.7
Cyprus				18.2	16.9	15.4	15.0	17.2	16.3	15.5
Czech Republic	12.7	14.3	16.7	15.5	16.8	18.2	16.7	17.4	17.5	17.5
Denmark		7.9	8.2	8.6	8.4	8.8	8.9	8.9	8.9	8.9
Estonia		8.5	9.9	8.1	7.9	7.9	8.8	9.0	8.6	9.0
Finland	13.6	13.5	12.5	12.2	13.2	13.5	12.4	12.9	13.6	14.0
France	10.9	10.1	9.9	10.0	10.8	11.1	10.6	10.8	11.0	11.2
Germany				11.1	11.0	11.1	10.6	10.5	10.5	10.9
Greece	32.9	32.9	30.3	29.3	30.2	31.5	31.1	31.6	31.4	31.7
Hungary		14.5	13.4	12.0	12.1	11.4	10.9	10.9	11.1	11.1
Iceland			13.7	12.4	11.5	12.5	12.2	11.6	12.7	13.2
Ireland		18.1	17.1	17.0	16.3	15.9	16.5	17.0	16.5	16.8
Italy	24.4	24.3	25.6	24.5	23.7	23.5	22.8	23.3	23.1	23.3
Latvia			9.5	9.0	10.4	10.3	10.4	10.7	11.1	10.7
Lithuania			15.9	9.7	9.3	9.5	10.1	11.2	11.2	10.8
Luxembourg			7.9	4.6	7.5	8.1	8.7	8.4	8.6	7.4
Macedonia				18.2	18.6	17.0	20.3	17.9	19.4	17.7
Malta			14.4	13.4	15.0	13.8	14.0	13.6	14.0	14.5
Netherlands		10.3	11.5	12.8	14.8	14.8	15.2	15.8	16.1	16.3
Norway		7.2	7.1	7.6	7.6	6.6	6.6	6.9	7.1	7.4
Poland		22.1	20.9	19.1	19.4	19.2	18.3	18.4	18.2	18.8
Portugal	26.1	23.6	25.5	23.7	22.8	21.2	20.2	20.1	20.0	19.4
Romania		23.7	20.3	20.4	20.8	19.5	18.6	18.3	19.5	21.4
Slovakia	6.5	7.7	10.8	13.3	16.3	15.5	15.4	15.6	15.4	15.7
Slovenia		10.6	9.6	10.3	11.8	12.6	10.7	12.9	13.6	12.6
Spain	20.0	18.3	16.6	16.4	16.0	16.4	16.5	17.0	17.1	17.5
Sweden			10.4	10.2	10.9	10.4	10.3	10.1	10.1	10.4
Switzerland					14.0	13.4	13.1	13.9	13.1	12.6
Turkey				27.0	26.7	25.3	23.4	21.3	22.7	22.8
United Kingdom		12.1	12.8	13.2	13.7	14.3	14.2	15.4	15.2	14.9

Source: Eurostat http://epp.eurostat.ec.europa.eu/portal/page/portal/employment_unemployment_ifs/data/database

http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ifsi_grt_a&lang=en

Table 3a. EU Self-employment numbers and changes 2008Q1 – 2014Q3 ages 15 and over

	Employment (000s)		Employees (000s)		Self-employed (000s)		Self-employment rate (%)		Em-	Self-
	2008Q1	2014Q3	2008Q1	2014Q3	2008Q1	2014Q3	2008Q1	2014Q3	ployees	em-
									Changes (000s)	ployed
EU28	220,966	219,982	187,688	186,856	33,278	33,126	15.1	15.1	-832	-152
Euro area	144,575	141,448	122,735	120,335	21,840	21,113	15.1	14.9	-2,400	-727
Austria	4,016	4,264	3,551	3,778	465	486	11.6	11.4	227	21
Belgium	4,450	4,549	3868	3939	582	610	13.1	13.4	71	28
Bulgaria	3,290	3,062	2912	2694	378	368	11.5	12.0	-218	-10
Croatia	1,591	1,635	1,299	1,414	292	221	18.4	13.5	115	-71
Cyprus	380	367	311	311	69	56	18.2	15.3	0	-13
Czech Republic	4,959	4,995	4,189	4,132	770	863	15.5	17.3	-57	93
Denmark	2,808	2,748	2,567	2,512	241	236	8.6	8.6	-55	-5
Estonia	657	634	604	579	53	55	8.1	8.7	-25	2
Finland	2,474	2,488	2,173	2,152	301	336	12.2	13.5	-21	35
France	25,716	25,904	23,149	23,028	2,567	2,876	10.0	11.1	-121	309
Germany	38,000	40,144	33,787	35,837	4,213	4,307	11.1	10.7	2,050	94
Hungary	3,844	4,182	3,383	3,731	461	451	12.0	10.8	348	-10
Ireland	2,135	1,927	1,773	1,609	362	318	17.0	16.5	-164	-44
Italy	23,171	22,552	17,504	17,381	5,667	5,171	24.5	22.9	-123	-496
Latvia	1,060	886	964	791	96	95	9.1	10.7	-173	-1
Lithuania	1,417	1,350	1,280	1,209	137	141	9.7	10.4	-71	4
Luxembourg	199	241	190	223	9	18	4.5	7.5	33	9
Malta	156	185	135	159	21	26	13.5	14.1	24	5
Netherlands	8,501	8,354	7,415	7,005	1,086	1,349	12.8	16.1	-410	263
Poland	15,515	16,062	12,545	13,127	2,970	2,935	19.1	18.3	582	-35
Portugal	5,112	4,565	3,901	3,706	1,211	859	23.7	18.8	-195	-352
Romania	9,118	8,822	7,255	7,021	1,863	1,801	20.4	20.4	-234	-62
Slovakia	2,392	2,376	2,073	2,010	319	366	13.3	15.4	-63	47
Slovenia	971	926	871	813	100	113	10.3	12.2	-58	13
Spain	20,620	17,504	17,238	14,532	3,382	2,972	16.4	17.0	-2,706	-410
Sweden	4,520	4,878	4,058	4,392	462	486	10.2	10.0	334	24
United Kingdom	29,330	30,800	25,466	26,289	3,864	4,511	13.2	14.6	823	647
Iceland	173	180	152	158	21	22	12.1	12.2	6	1
Macedonia	601	691	491	570	110	121	18.3	17.5	79	11
Norway	2,487	2,637	2,298	2,444	189	193	7.6	7.3	146	4
Turkey	19,863	26,313	14,498	20,622	5,365	5,691	27.0	21.6	6,124	326

Source: Eurostat

Table 3b. Agricultural self-employment rates ages 15 and over (%)

	2008 Q1	2010 Q1	2012 Q1	2014 Q1	2014 Q2	2014 Q3
EU28	55.0	55.9	54.3	54.2	53.1	52.4
Euro area 19	52.6	54.6	53.1	52.1	51.4	51.1
Austria	56.8	53.6	56.1	54.6	52.5	52.1
Belgium	58.4	62.6	60.2	66.1	63.4	57.1
Bulgaria	48.4	46.7	42.7	41.8	41.7	42.4
Croatia	70.1	71.3	70.8	56.4	58.9	58.8
Cyprus	59.7	48.6	47.4	46.6	43.9	41.8
Czech Republic	19.3	22.1	28.4	24.4	24.2	25.1
Denmark	44.9	40.3	47.6	48.2	42.7	40.5
Estonia	31.2		22.3	20.3		23.9
Finland	64.4	62.1	66.0	63.9	61.7	60.6
France	57.5	62.7	60.2	60.4	59.8	57.1
Germany	37.0	37.0	38.4	37.9	35.8	36.7
Greece	69.0	71.6	73.2	74.8	73.8	72.9
Hungary	30.3	33.2	29.6	31.5	30.7	28.9
Iceland	37.2	31.4	42.2	34.6	34.5	32.5
Ireland	78.5	78.3	74.9	72.9	72.2	72.7
Italy	46.8	50.5	46.5	45.2	43.0	41.7
Latvia	36.7	39.0	35.3	36.9	40.4	37.7
Lithuania	44.3	46.0	48.6	49.9	45.4	38.8
Luxembourg	44.0	78.9	72.7	83.8	66.7	36.6
Macedonia			43.9	42.6	49.2	46.3
Malta	75.0					
Netherlands	49.5	56.1	48.8	52.1	51.2	53.1
Norway	56.0	61.2	54.8	52.0	51.6	55.1
Poland	66.2	65.4	66.5	64.9	64.1	64.6
Portugal	82.0	82.6	81.2	79.3	77.3	74.8
Romania	54.9	54.0	50.3	54.8	52.5	50.5
Slovakia	16.8	20.2	20.5	18.3	19.9	23.5
Slovenia	38.3	38.8	40.8	40.8	36.0	32.3
Spain	41.2	38.6	39.0	35.7	39.1	42.7
Sweden	59.3	58.9	60.4	55.4	52.8	53.8
Switzerland		56.5	47.3	47.8	45.3	43.4
Turkey		48.7	48.4	44.5	39.6	38.6
United Kingdom	49.1	56.4	54.1	52.6	53.4	52.5

Source: Eurostat. <http://ec.europa.eu/eurostat/web/lfs/data/database>

Table 3c. Construction self-employment rates

GEO/TIME	2008 Q1	2010 Q1	2012 Q1	2014 Q1	2014 Q2	2014 Q3
EU28	23.9	26.5	27.2	27.7	27.4	27.5
Euro area 19	22.1	24.7	25.4	25.4	25.3	25.4
Austria	8.2	8.7	9.6	9.8	9.3	10.4
Belgium	23.6	24.7	24.7	23.8	25.7	22.9
Bulgaria	7.9	9.5	11.2	12.7	11.5	13.0
Croatia	20.1	19.4	19.0	19.0	20.2	15.5
Cyprus	24.7	24.0	20.9	28.1	25.1	23.1
Czech Republic	37.7	39.6	42.7	43.3	43.2	43.9
Denmark	18.6	21.5	21.7	20.4	21.0	17.6
Estonia	11.5		13.4	16.3	15.2	9.6
Finland	22.5	25.7	25.3	24.9	22.8	22.7
France	17.4	20.7	20.7	20.3	21.3	21.2
Germany	17.9	18.8	19.2	17.8	18.5	18.7
Greece	28.7	30.7	36.0	41.2	39.0	36.9
Hungary	20.3	22.5	20.6	19.5	19.6	20.1
Iceland	29.7	30.5	36.1	38.0	35.7	34.0
Ireland	29.2	37.9	36.2	37.8	36.7	36.5
Italy	35.9	35.7	36.5	40.5	39.3	40.2
Latvia	10.1		16.0	13.4	15.2	13.2
Lithuania	13.4	8.7	9.9	10.2	11.4	13.7
Luxembourg	6.9	6.5	6.4	10.3		5.2
Macedonia			22.5	33.3	28.3	28.4
Malta	28.8	32.5	36.2	32.5	33.0	29.5
Netherlands	21.9	26.2	27.0	32.1	32.4	29.5
Norway	14.5	15.8	12.8	13.5	13.4	15.4
Poland	19.9	23.4	21.5	23.1	22.8	22.5
Portugal	22.2	22.1	25.1	22.5	22.4	21.9
Romania	22.5	25.3	22.1	24.8	26.7	27.9
Slovakia	38.4	46.4	45.8	42.9	40.5	41.0
Slovenia	17.6	22.2	25.5	21.6	20.9	20.8
Spain	19.4	24.7	29.2	31.1	30.2	31.3
Sweden	19.7	21.9	20.8	20.6	20.1	20.3
Switzerland		17.6	14.2	15.6	15.1	13.1
Turkey		21.0	20.1	15.1	15.5	17.1
United Kingdom	35.4	38.5	40.7	41.6	40.3	40.4

Source: Eurostat. <http://ec.europa.eu/eurostat/web/lfs/data/database>

Table 3d. Non-agricultural self-employment rates

GEO/TIME	2008 Q1	2010 Q1	2012 Q1	2014 Q1	2014 Q2	2014 Q3
EU28	12.9	13.1	13.3	13.3	13.2	13.2
Euro area 19	13.6	13.6	13.8	13.7	13.6	13.6
Austria	9.1	9.4	9.0	9.1	9.1	9.2
Belgium	12.2	12.8	13.4	12.8	13.4	12.9
Bulgaria	8.7	8.9	8.2	9.7	9.2	9.5
Croatia	11.1	10.5	10.4	10.2	9.6	8.9
Cyprus	16.4	15.7	14.4	16.3	15.1	14.0
Czech Republic	15.4	16.6	17.9	17.3	17.3	17.1
Denmark	7.7	7.6	7.7	8.1	8.0	7.7
Estonia	7.1		7.2	9.0		7.9
Finland	9.8	10.8	11.3	11.4	11.0	11.3
France	8.7	9.3	9.7	9.4	9.5	9.8
Germany	10.6	10.5	10.7	10.1	10.1	10.4
Greece	24.2	24.3	25.5	25.2	24.2	24.2
Hungary	11.2	11.2	10.5	9.5	9.8	9.9
Iceland	11.2	10.4	10.8	10.7	11.3	11.5
Ireland	13.5	13.6	13.2	13.4	13.2	13.1
Italy	23.6	22.7	22.6	22.9	22.3	22.2
Latvia	6.8	7.9	7.8	8.8	9.1	8.4
Lithuania	6.5	5.9	6.1	7.2	7.5	7.7
Luxembourg	4.1	6.9	7.5	6.9	7.7	7.1
Macedonia			11.5	11.9	12.5	11.2
Malta	12.4					
Netherlands	11.7	13.4	13.9	15.3	15.5	15.3
Norway	6.3	6.2	5.5	5.9	6.0	6.2
Poland	11.7	12.5	12.5	12.3	12.2	12.3
Portugal	16.3	15.0	14.1	14.4	14.1	13.3
Romania	7.1	7.8	8.0	7.5	7.7	7.9
Slovakia	13.2	16.1	15.3	15.4	15.1	15.1
Slovenia	7.7	9.4	10.2	10.2	10.5	10.1
Spain	15.3	14.9	15.4	16.3	15.9	16.0
Sweden	9.2	9.9	9.3	9.4	9.1	9.1
Switzerland		12.6	12.1	12.6	11.9	11.3
Turkey		20.4	18.8	16.6	16.7	16.8
United Kingdom	12.8	13.2	13.8	14.6	14.5	14.2

Source: Eurostat. <http://ec.europa.eu/eurostat/web/lfs/data/database>

Table 4. Change in Numbers of self-employed, employed, adult population and the employment rate, 2008Q1-2014Q2 (2008Q1=100)

	Self-employment	Employment	Employment Rate	Population Ages 15+	Population Ages 15-64
EU28	99	99	99	99	101
Euro area 18	96	98	98	100	102
Austria	103	105	103	102	104
Belgium	109	102	99	103	105
Bulgaria	92	91	97	93	94
Croatia	78	99	98	102	99
Cyprus	87	96	89	110	110
Czech Republic	113	100	104	96	100
Denmark	99	96	95	101	105
Estonia	97	95	99	96	97
Finland	109	101	101	99	104
France	110	101	100	100	103
Germany	101	107	106	100	101
Greece	82	78	81	96	98
Hungary	97	107	110	98	99
Iceland	103	103	100	101	104
Ireland	87	89	90	99	102
Italy	91	97	96	101	103
Latvia	105	84	97	88	90
Lithuania	105	92	102	90	92
Luxembourg	226	124	106	116	116
Macedonia	121	115	113	102	103
Malta	117	113	112	101	106
Netherlands	124	98	96	100	104
Norway	98	106	98	107	110
Poland	97	102	106	96	99
Portugal	74	88	92	97	100
Romania	96	95	106	90	92
Slovakia	113	98	99	99	101
Slovenia	122	96	96	99	101
Spain	86	84	86	98	101
Sweden	103	106	102	102	105
Switzerland	100	107	100	106	108
Turkey	107	134	120	111	113
United Kingdom	117	104	100	102	105

Source: Eurostat

Table 5. Non-OECD Self-Employment Rates

GEO/TIME	1995	2005	2010	GEO/TIME	1995	2005	2010
Afghanistan			22.2	Georgia			13.8
Albania		13.5		Ghana		25.9	
Azerbaijan	12.8			Guatemala		28.0	
Bangladesh		20.0		Guinea	54.2		
Belize		18.3		Honduras	28.4	33.0	31.9
Benin		46.2		India	17.1	21.0	20.3
Bhutan		9.1		Indonesia	23.7	24.9	27.3
Bolivia	29.2	29.3	30.3	Jamaica	21.8		
Bosnia and Herzegovina		9.8		Kenya	10.4	7.4	
Botswana			12.2	Kosovo		17.3	
Brazil	22.0	22.3	21.7	Kyrgyz	1.9		
Burkina Faso	7.6	7.9		Lao PDR			16.9
Cambodia	17.0	19.2	19.2	Liberia		43.8	
Central African Republic		24.5		Macedonia,		11.2	
Colombia		36.9	41.6	Madagascar	18.9		
Congo, Dem. Rep.		20.3		Indonesia	23.7	24.9	27.3
Congo, Rep.		42.3		Jamaica	21.8		
Costa Rica	24.2	22.8	23.2	Kenya	10.4	7.4	
Croatia		7.7		Kosovo		17.3	
Dominican Republic	29.3	35.0	37.1	Kyrgyz	1.9		
Ecuador	27.3	27.4	27.7	Lao PDR			16.9
Egypt		13.2		Liberia		43.8	
El Salvador	28.8	32.0		Macedonia,		11.2	
Ethiopia		4.8	11.7	Madagascar	18.9		
Fiji	9.3		11.7	Malawi		10.8	7.0
Gabon		23.3		Mali		14.9	33.0
Mauritania		42.8		South Africa		18.5	
Mauritius		15.6	15.9	Sri Lanka	14.3	20.7	22.3
Moldova		2.8		Swaziland	30.4		
Mongolia			11.5	Syria		24.1	
Mozambique	4.5	7.3	8.6	Tajikistan		8.1	
Namibia	9.6			Tanzania		8.1	
Nepal		9.6	13.3	Thailand	18.0	19.8	20.9
Nicaragua		26.6		Togo		32.5	
Nigeria	23.2	57.7		Tonga	24.2		
Pakistan		23.8	23.1	Tunisia	16.6		
Panama	19.1	24.3	21.9	Turkey		18.7	16.3
Papua New Guinea			40.6	Uganda		13.8	
Paraguay	26.2	24.7	24.8	Ukraine		2.2	
Peru	31.9	29.4	30.9	Uruguay	24.7	27.0	24.1
Philippines	20.1	22.4	21.5	Venezuela,	31.9	38.2	
Rwanda	4.0	9.1		Vietnam	31.0	19.5	7.9
Senegal	58.6	42.5		West Bank/Gaza		25.9	21.5
Serbia			13.5	Zambia		12.6	
Sierra Leone		20.1					

Source: World Development Report 2013 Jobs Table 3

Table 6. 'Own-account workers' as % total employment

Country	2007	2008	2009	2010	2011	2012	2013
Albania			28		28	26	24
Argentina			19	18	19	19	20
Armenia			25	28	30	29	30
Aruba	4			4			
Australia	9	9	9	9	9	8	8
Austria	7	7	7	7	7	7	7
Azerbaijan	53	55	27	27	28	27	27
Bahamas		13	13		14		
Belgium	9	9	9	9	9	9	10
Bermuda			8	6		8	
Bhutan			22	27	29	30	
Bolivia	33		33		36		
Bosnia & Herzegovina			21	21	20	23	21
Brazil	21		21		21	21	21
Bulgaria	7	8	8	8	8	7	8
Cambodia	38	37	49	50	53	55	55
Canada			11	11	11	11	11
Cayman Islands	4	4		3	4	4	4
Chile	23	23	24	21	20	19	20
China		8	9	9	10	11	
Colombia	36	42	43	43	44	43	43
Costa Rica	18	18		19	19	19	20
Croatia	14	14	14	15	15	14	12
Cuba	12	12	5	5			
Cyprus	13	13	12	12	12	11	12
Czech Republic	12	12	12	14	14	14	14
Denmark	5	5	5	5	5	5	5
Dominican Republic	39		42	43	43	42	40
Ecuador					33	32	30
Egypt	13		11	12	12	12	15
El Salvador	27		31	31	31	30	30
Estonia	6	4	4	5	5	5	5
Ethiopia			39	38	39	39	
Finland	8	9	9	9	9	9	9
France	6	5	6	7	7	7	7
Georgia	34	35	36	36	35	34	36
Germany	6	6	6	6	6	6	6
Greece	21	21	21	22	23	25	25
Guatemala				30	29	31	31
Guinea			53	53	53	53	
Hong Kong	7	7	7	6	6	7	7
Hungary	7	7	7	7	6	6	6
Iceland	9	8	8	8	8	8	8
Indonesia	42	43	42	40	36	34	17
Iran	32	33	32	33			
Ireland	11	11	11	11	11	11	12

(2) Country	2007	2008	2009	2010	2011	2012	2013
Israel	7	7	7	8	8	8	8
Italy	17	17	17	17	17	17	16
Jamaica	32	35					
Japan	7	7	7	7	7	7	7
Kazakhstan	32	31	30	30			28
Korea	19	19	18	17	17	17	17
Kyrgyzstan			28	27	26	26	29
Latvia	6	5	6	6	7	7	7
Lithuania	11	8	8	7	7	8	8
Luxembourg	4	4	5	5	6	5	6
Macau, China	5	4	4	4	4	4	3
Macedonia	12	13	13	13	13	14	15
Malaysia	17	17	17	17	16	17	17
Malta	9	9	10	10	9	9	9
Mauritius	15	14	14	14	13	14	
Mexico	23	23	23	22	23	23	23
Moldova	30	29	26	26	26	26	28
Montenegro					9	7	
Morocco	25	28	27	28	29	29	
Namibia						11	3
Netherlands	9	9	9	11	11	11	12
Netherlands Antilles	11		18		17		
New Zealand	11	11	10	11	11	11	9
Nicaragua			36	36			
Norway	6	5	6	5	5	5	5
Pakistan	35	34	33	34	35		33
Panama	25	24	27	27	25	24	
Paraguay	37	34	35	33	33	35	31
Peru	27	27	35	35	35	35	35
Philippines	32	31	31	30	30	28	28
Poland	15	15	15	15	15	15	14
Portugal	18	18	18	17	16	16	16
Romania	20	19	19	20	19	19	19
Romania							
Russian Federation	6	6	6	5	6	5	6
Saudi Arabia			5				3
Serbia	16	20	20	21	18	19	21
Singapore	10	9			9	9	8
Slovakia	10	10	12	12	12	12	12
Slovenia	8	7	7	9	9	9	9
South Africa	11	9	9	9	9	9	9
Spain	11	11	10	10	11	11	12
Sri Lanka	30	30	29	32	32	32	33
Sweden	6	6	7	7	7	6	7
Switzerland	8	8	7	7	7	7	7
Syria	29			29	63		
Taiwan, China	14	13					12
Tanzania					48		42
Thailand	32	32	32	32	32	32	33

(3) Country	2007	2008	2009	2010	2011	2012	2013
Trinidad & Tobago			15	16			15
Tunisia					19	17	
Turkey	21	20	21	20	19	19	19
Uganda			78				45
Ukraine			17	17	18	17	18
United Kingdom	10	10	11	11	11	12	12
Uruguay	23		23	22	22	21	21
Vanuatu			61				
Venezuela,	29		31	33	32	31	30
Viet Nam			45	43	44	45	46
West Bank & Gaza Strip	24	21			19	18	18

Source: ILO. To be included country had to have minimum of two observations 2009-12.

http://www.ilo.org/ilostat/faces/help_home/data_by_subject/subject-details/indicator-details-by-subject?indicator=EMP_TEMP_SEX_STE_DT&subject=EMP&_afLoop=1481518362497844&datasetCode=Y1&collectionCode=Y1&_adf.ctrl-state=vzldzrvq_302#%40%3Findicator%3DEMP_TEMP_SEX_STE_DT%26subject%3DEMP%26_afLoop%3D1481518362497844%26datasetCode%3DY1%26collectionCode%3DY1%26_adf.ctrl-state%3Dpimosytf7_25

Table 7. 'Employers' as % total employment

Country	2007	2008	2009	2010	2011	2012	2013
Albania			1		2	2	2
Argentina				5	5	4	4
Armenia	1		1	1	1	1	1
Australia	3	3	3	3	2	2	2
Austria	5	5	5	5	5	5	5
Azerbaijan	5	3	12	12	11	10	10
Belgium	5	4	5	5	4	4	4
Bermuda			6	4		10	
Bhutan			0	0	0	0	
Bosnia & Herzegovina	23	22					
Brazil	4		4		3	4	4
Bulgaria	4	4	4	4	4	4	4
Cambodia	0	0	0	0	0	0	0
Canada	15	15	5	5	5	5	5
Cayman Islands	4	5			4	4	5
Chile	3	3	3	5	4	4	4
Colombia	5	5	5	5	5	5	5
Costa Rica	7	8		4	4	4	4
Croatia	5	5	5	5	5	5	4
Cyprus	6	6	5	5	5	4	4
Czech Republic	4	4	4	4	4	3	3
Denmark	4	4	4	4	4	4	3
Dominican Republic	4		5	4	4	3	4
Ecuador					3	4	3
Egypt	14		15	15	16	16	13
El Salvador	4		4	4	4	4	4
Estonia	3	3	4	4	4	4	4
Ethiopia			1	1	1	1	0
Finland	4	4	4	4	4	4	4

(2) Country	2007	2008	2009	2010	2011	2012	2013
France	4	5	5	5	5	4	4
Georgia	1	1	1	1	1	1	1
Germany	5	5	5	5	5	5	5
Greece	8	8	8	8	8	7	7
Grenada							
Guatemala				3	2	3	3
Guinea			0	0	0	0	
Hong Kong	4	4	4	4	4	3	3
Hungary	5	5	5	6	5	5	5
Iceland	5	5	4	4	4	4	4
Indonesia	3	3	3	3	3	4	21
Iran	5	5	5	4			
Ireland	6	6	6	5	5	5	5
Israel	4	5	5	4	4	4	4
Italy	7	7	7	7	7	7	7
Jamaica	3	3					
Japan	3	3	3	2	2	2	2
Kazakhstan	2	2	2	2			2
Korea	7	7	6	6	6	6	6
Kyrgyzstan			1	1	1	1	1
Latvia	3	4	4	4	4	4	4
Lithuania	2	2	2	2	2	2	2
Luxembourg	3	2	3	3	3	3	3
Macau, China	4	3	3	3	3	3	3
Macedonia	6	5	5	5	6	5	5
Malaysia	3	4	4	4	4	4	4
Malta	5	5	4	5	4	4	5
Mauritius	3	3	4	4	4	4	
Mexico	5	5	4	5	5	5	5
Moldova	1	1	1	1	1	1	1
Mongolia			2	1	1	1	
Montenegro					7	9	
Morocco	2	3	3	3	2	3	
Namibia						4	28
Netherlands	4	4	4	4	4	4	4
Netherlands Antilles	12		4		4		
New Zealand	5	5	5	5	4	5	5
Nicaragua			4	4			
Norway	2	2	2	2	2	2	2
Pakistan	1	1	1	1	1		2
Panama	3	3	3	3	3	3	
Paraguay	5	5	6	5	5	6	6
Peru	6	5	6	6	5	5	5
Philippines	4	4	4	4	4	4	3
Poland	4	4	4	4	4	4	4
Portugal	6	6	5	5	5	5	5
Puerto Rico	15	15					
Romania	2	1	1	1	1	1	1
Russian Federation	1	2	1	1	1	1	1

(3) Country	2007	2008	2009	2010	2011	2012	2013
Saudi Arabia			2				2
Serbia	4	5	4	4	4	4	4
Singapore	5	5			5	6	6
Slovakia	3	3	3	4	4	3	3
Slovenia	3	3	3	4	4	3	3
South Africa	7	6	5	5	5	5	5
Spain	5	6	6	6	5	5	5
Sri Lanka	3	3	3	3	3	3	3
Sweden	4	4	4	4	4	4	4
Switzerland	6	6	6	6	6	6	6
Syria	9			4	5		
Taiwan, China	5	5					4
Tanzania					2		2
Thailand	3	3	3	3	2	2	3
Trinidad & Tobago			5	5			6
Tunisia	25	25	25	26	6	7	24
Turkey	6	6	6	5	5	5	5
Turks & Caicos Islands	5	3					
United Kingdom	3	3	3	3	3	3	3
United States	7	7	7	7	7	7	7
Uruguay	5		5	5	5	5	5
Viet Nam			5	3	3	3	3
West Bank & Gaza	4	4			6	6	6

Source: See Table 7a

Table 8. Self-employment with employees as a % of total employment

	1998 Q2	2000 Q2	2002 Q2	2004 Q2	2006 Q2	2008 Q2	2010 Q2	2012 Q2	2014 Q2
EU28			5.0	4.6	4.6	4.5	4.4	4.3	4.2
Euro area 18		6.1	5.9	5.3	5.2	5.2	5.1	5.0	4.8
Austria		5.1	5.6	4.6	4.8	4.9	4.8	4.6	4.7
Belgium	1.8	4.5	4.0	4.5	4.4	4.2	4.0	4.2	4.2
Bulgaria		2.3	3.4	3.8	3.9	3.6	3.8	3.5	3.6
Croatia			5.5	4.9	5.3	5.8	4.3	4.7	5.5
Cyprus		6.1	5.6	6.4	6.3	5.4	4.8	4.1	3.7
Czech Republic	4.1	4.2	4.0	4.0	4.0	3.5	3.6	3.4	3.4
Denmark	4.2	4.2	4.1	3.5	4.3	4.0	3.4	3.6	3.5
Estonia	2.7	3.0	1.8	3.3	2.5	2.9	3.2	4.0	3.4
Finland	3.6	4.3	4.0	4.2	4.1	3.8	4.1	4.2	4.1
France				4.3	4.5	4.7	4.4	4.3	4.2
Germany	5.1	5.0	4.9	5.1	4.8	4.7	4.9	4.8	4.6
Greece	7.3	8.0	7.6	8.1	8.1	8.2	7.8	7.1	6.1
Hungary	2.7	5.1	5.3	5.9	5.5	5.1	5.5	5.3	5.2
Iceland				4.6	4.4	4.9	3.9	4.2	4.0
Ireland	6.1	5.9	5.8	5.8	5.4	5.6	5.2	4.8	4.6
Italy	12.4	12.7	12.1	7.3	7.2	6.9	6.6	6.5	6.6
Latvia			3.2	3.3	3.8	3.2	4.1	3.7	4.5
Lithuania			2.1	1.9	2.4	2.1	2.2	2.1	2.4

(2)	1998 Q2	2000 Q2	2002 Q2	2004 Q2	2006 Q2	2008 Q2	2010 Q2	2012 Q2	2014 Q2
Luxembourg	5.3	6.0	5.1	2.8	2.7	2.3	2.7	3.4	2.8
Malta		3.8	4.2	4.5	4.9	4.4	4.2	5.3	4.4
Netherlands	4.0	3.2	3.5	3.7	3.8	3.7	3.9	3.8	4.0
Norway	1.8	1.7	1.4	1.6	1.9	2.0	2.2	1.8	1.9
Poland	4.0	3.9	3.8	4.0	4.1	4.2	4.2	4.1	4.1
Portugal	6.2	6.2	6.2	6.3	5.4	5.5	4.9	4.9	5.1
Romania	1.2	1.1	1.4	1.6	1.7	1.3	1.2	1.3	1.2
Slovakia	2.5	2.5	2.3	3.4	3.1	3.2	3.4	3.1	3.3
Slovenia	3.5	3.6	3.6	3.4	3.6	3.0	3.7	3.1	3.4
Spain	5.2	5.6	5.2	5.4	5.4	5.7	5.5	5.2	4.9
Sweden	3.9	3.8	3.7	3.7	3.9	3.8	3.9	3.7	3.6
Switzerland	7.7	8.2	6.5	6.4	6.2	6.1	6.1	6.3	5.9
United Kingdom	3.1	3.2	3.0	3.0	2.9	2.8	2.6	2.6	2.6

Source:

Table 9. Proportion of self-employed who have no employees as a % of total employment

	1998Q2	2002Q2	2004Q2	2006Q2	2008Q2	2010Q2	2012Q2	2014Q2
EU28		9.9	10.6	10.6	10.3	10.7	10.8	10.7
Euro area 18		8.6	9.8	9.9	9.6	9.9	10.0	9.9
Austria		5.2	6.9	6.9	6.6	6.7	6.6	6.5
Belgium	13.5	9.5	8.5	8.7	8.7	8.8	9.5	9.6
Bulgaria		9.9	9.7	8.1	8.0	8.1	7.3	8.1
Croatia		13.4	15.7	14.8	13.6	14.9	13.2	8.8
Cyprus		13.8	13.5	12.6	12.4	11.5	10.2	12.4
Czech Republic	8.9	11.2	12.2	11.4	12.0	13.4	14.7	14.0
Denmark	4.2	3.9	4.4	4.5	4.5	5.2	5.2	5.3
Estonia	5.3	4.6	6.0	5.7	4.3	4.3	4.6	4.8
Finland	9.9	8.3	7.9	8.3	8.3	8.6	8.8	9.1
France			5.4	6.1	5.3	6.4	6.6	6.7
Germany	4.8	5.0	5.7	6.1	5.9	6.1	6.2	5.8
Greece	24.9	24.0	22.3	21.3	20.5	21.6	24.3	24.7
Hungary	12.5	7.9	8.2	6.7	6.9	6.4	6.0	5.6
Iceland			8.6	10.2	7.9	7.9	8.2	8.5
Ireland	12.5	11.0	11.2	10.0	10.6	10.8	10.9	11.6
Italy	11.9	11.1	18.1	17.3	16.9	17.2	16.9	16.2
Latvia		6.0	6.6	7.9	5.6	5.9	6.2	6.8
Lithuania		15.0	13.9	12.6	8.0	7.3	7.7	8.5
Luxembourg	3.5	2.2	5.0	5.0	3.9	4.3	4.1	5.5
Macedonia				13.1	13.4	13.3	15.6	14.6
Malta		10.3	9.6	9.5	8.9	10.1	9.0	9.4
Netherlands	6.8	7.5	7.8	8.3	8.8	10.5	10.7	12.1
Norway	5.9	5.5	5.6	6.1	5.5	5.5	4.9	5.2
Poland	18.4	18.6	17.0	15.9	15.0	14.6	14.8	13.9
Portugal	18.8	17.9	16.9	16.8	16.0	15.1	14.7	13.2
Romania	20.4	21.4	18.7	19.2	19.9	21.0	18.9	19.5

(2)	1998Q2	2002Q2	2004Q2	2006Q2	2008Q2	2010Q2	2012Q2	2014Q2
Slovakia	4.2	6.0	8.5	9.5	10.2	12.4	12.3	12.0
Slovenia	8.8	7.9	6.5	7.6	6.9	8.1	8.8	9.5
Spain	14.7	11.9	11.2	11.1	10.7	10.3	11.1	11.9
Sweden	6.7	6.5	6.4	6.5	6.4	6.7	6.3	6.4
Switzerland	7.1	7.8	7.6	7.3	7.6	6.9	7.0	6.9
Turkey				21.9	19.8	19.6	18.8	17.0
United Kingdom	8.9	8.9	9.6	9.7	10.1	10.8	11.4	12.2

Source:

Table 10. Self-employment rates by Gender (%)

		1995	2000	2005	2008	2009	2010	2011	2012	2013
Australia	Male	17.7	16.0	15.5	14.0	14.3	14.1	13.4	12.4	12.2
Australia	Female	11.9	10.3	9.8	8.9	8.8	8.9	8.7	8.4	8.1
Austria	Male		13.9	15.3	15.7	15.6	16.0	15.9	15.6	15.7
Austria	Female		12.2	10.9	11.5	11.0	11.3	11.3	10.8	10.6
Belgium	Male	19.7	17.5	17.5	17.0	17.7	17.3	17.5	17.6	18.8
Belgium	Female	17.6	13.5	12.3	10.8	11.3	10.8	10.5	10.5	10.7
Brazil	Male			38.0	35.4	35.3		34.6	34.3	34.4
Brazil	Female			34.7	31.6	30.6		27.5	27.1	26.8
Canada	Male	11.8	11.8	10.6	10.2	10.5	10.2	9.9	9.7	9.3
Canada	Female	9.1	9.2	8.2	7.8	8.4	8.1	8.0	8.0	8.1
Chile	Male		32.4	32.8	28.2	29.1	27.5	27.0		52.9
Chile	Female		24.5	25.8	24.4	25.2	24.9	26.0		
Colombia	Male			50.7	52.0	53.8	54.5	54.4	53.4	21.3
Colombia	Female			47.3	48.6	51.3	52.5	53.7	53.5	52.1
Czech Republic	Male	15.1	19.1	20.4	20.3	20.9	22.0	22.0	22.3	
Czech Republic	Female	8.0	10.2	10.4	10.6	11.4	12.2	12.9	13.5	13.5
Denmark	Male	12.2	12.1	11.9	12.2	12.9	12.3	12.4	12.3	12.1
Denmark	Female	6.2	5.7	5.4	5.0	5.4	5.6	5.4	5.6	5.6
Estonia	Male	8.9	11.4	11.1	10.7	11.7	11.9	12.3	12.6	12.4
Estonia	Female	4.8	6.0	4.9	5.0	5.3	5.4	5.2	5.1	5.9
Euro area 17	Male		19.8	19.9	19.4	19.6	19.8	19.7	19.8	19.7
Euro area 17	Female		12.9	12.6	12.0	11.7	11.7	11.5	11.5	11.5
EU27	Male		20.9	20.5	19.8	20.0	20.3	20.2	20.2	20.1
EU27	Female		14.8	13.2	12.5	12.4	12.6	12.4	12.4	12.3
Finland	Male	20.2	17.8	16.7	16.8	18.0	17.7	17.7	18.2	18.0
Finland	Female	10.5	9.2	8.5	8.6	9.1	9.0	8.8	8.9	8.8
France	Male	12.6	10.9	10.8	11.1	11.3	11.5	11.8		
France	Female	8.7	7.3	7.0	6.8	6.8	6.9	7.1		
G7	Male	14.4	13.3	13.2	12.6	12.7	12.7	12.4		
G7	Female	11.3	9.8	9.1	8.4	8.3	8.2	8.0		
Germany	Male	12.5	13.4	14.9	14.1	14.4	14.4	14.5	14.4	14.0
Germany	Female	8.3	7.9	9.4	8.9	8.5	8.4	8.5	8.3	8.1
Greece	Male	47.4	43.7	39.1	37.8	38.6	38.6	39.5	40.6	
Greece	Female	43.8	38.9	32.0	30.9	30.8	31.0	31.7	31.2	
Hungary	Male	22.1	19.1	17.3	15.5	15.6	15.4	15.2	14.3	13.7
Hungary	Female	13.0	10.5	9.9	8.6	9.1	8.8	8.5	8.8	8.2

(2)		1995	2000	2005	2008	2009	2010	2011	2012	2013
Iceland	Male	27.6	24.0	20.1	17.1	16.7	16.9	16.5	16.2	16.5
Iceland	Female	10.6	11.0	7.4	7.6	7.2	8.8	8.9	9.0	8.2
Ireland	Male	29.9	25.9	25.1	24.7	26.2	25.3	24.6	24.8	24.9
Ireland	Female	9.7	8.6	7.6	7.5	7.3	7.7	7.4	7.5	8.1
Israel	Male	19.3	18.3	17.3	16.7	17.0	17.0	16.5	16.2	15.8
Israel	Female	10.1	9.3	8.2	8.0	8.2	8.0	8.3	8.7	9.0
Italy	Male	32.3	32.3	31.2	30.1	29.8	30.3	30.1	30.0	29.9
Italy	Female	23.8	22.0	20.6	19.3	18.5	18.5	18.2	18.3	18.2
Japan	Male	16.1	15.5	14.5	13.3	13.1	12.8	11.9	12.6	12.4
Japan	Female	21.5	18.3	14.9	12.4	11.9	11.3	10.4	10.7	10.4
Korea	Male	34.3	35.7	34.0	31.9	30.8	30.0	29.6	29.8	29.0
Korea	Female	40.4	38.4	32.9	30.4	28.8	27.1	26.4	26.0	25.3
Luxembourg	Male	8.6	7.7	7.4	6.7	6.7	6.7	6.6		
Luxembourg	Female	8.0	6.9	5.3	4.7	4.6	4.6	4.5		
Mexico	Male	41.6	36.4	35.7	33.5	33.4	34.2	33.1	32.8	32.5
Mexico	Female	40.5	35.2	35.3	34.7	34.4	35.5	34.7	35.1	33.8
Netherlands	Male	13.7	12.6	14.6	15.8	16.1	18.0	18.0	18.5	19.4
Netherlands	Female	11.3	9.4	9.7	10.1	10.5	11.5	11.5	11.7	12.3
New Zealand	Male	25.1	25.6	22.7	21.2	20.3	19.8	20.1	20.0	18.4
New Zealand	Female	15.3	14.5	13.3	12.5	11.8	11.8	12.4	12.2	11.4
Norway	Male	12.1	9.8	10.2	10.9	11.1	10.8	9.7	9.4	9.3
Norway	Female	6.1	4.8	4.4	4.5	4.9	4.4	4.1	4.1	4.4
OECD - Total	Male		19.6	19.0	18.1	18.2	18.3	17.9		
OECD - Total	Female		15.1	13.8	13.1	13.0	13.2	13.0		
Poland	Male	31.4	29.5	27.9	25.0	24.9	25.3	25.3	25.0	
Poland	Female	27.7	24.8	23.1	20.4	20.1	20.1	19.8	19.2	
Portugal	Male	29.9	27.4	26.7	25.6	26.1	25.3	25.0	25.8	25.6
Portugal	Female	25.5	24.4	23.3	22.4	21.2	20.1	17.0	17.5	17.3
Russia	Male		10.5	8.3	8.0	8.2	7.7	7.9	7.8	8.1
Russia	Female		9.7	7.3	6.6	6.7	6.0	6.3	6.0	6.4
Slovak Republic	Male	8.7	10.8	17.2	18.4	20.3	21.3	20.8	19.8	20.2
Slovak Republic	Female	3.8	4.6	6.9	7.8	9.8	9.4	9.7	9.9	9.8
Slovenia	Male		18.6	17.2	16.5	19.0	20.0	19.7	19.2	19.6
Slovenia	Female		13.0	12.7	11.3	12.8	14.0	13.4	12.8	13.6
Spain	Male	26.2	22.2	20.7	21.0	20.3	20.4	20.0	21.3	22.1
Spain	Female	23.2	16.6	14.2	13.2	12.6	12.3	12.2	12.7	13.1
Sweden	Male	15.7	14.5	14.0	14.5	14.7	15.0	14.4	14.6	14.5
Sweden	Female	6.4	5.7	5.3	5.9	6.2	6.4	6.0	5.9	6.2
Switzerland	Male	13.4	13.9	11.7	11.6	11.0	11.0	10.6	10.4	10.5
Switzerland	Female	12.0	12.3	10.6	10.4	10.2	10.0	10.4	10.3	10.2
Turkey	Male	52.2	46.5	40.0	36.1	36.6	35.1	34.2	33.5	32.7
Turkey	Female	74.0	64.7	51.7	46.8	48.9	49.3	48.4	45.7	43.4
United Kingdom	Male	20.6	16.7	17.4	17.8	18.0	18.2	18.3	19.0	18.7
United Kingdom	Female	9.6	8.3	7.7	8.2	8.5	8.9	9.0	9.6	9.6
United States	Male	9.9	8.6	8.8	8.3	8.4	8.3	8.0	7.8	7.5
United States	Female	6.9	6.1	5.9	5.6	5.7	5.6	5.5	5.6	5.6

Source: OECD <http://data.oecd.org/emp/self-employment-rate.htm>

Table 11. Self-employment rate by place of birth, for 15+ year olds (%)

	Nationality	1995	2000	2005	2008	2009	2010	2011	2012	2013
EU 27	Foreign		10.3	11.3	11.3	11.6	11.9	12.1	12.8	13.2
	Native born		13.0	15.4	15.1	15.2	15.5	15.3	15.4	15.3
Euro area 19	Foreign		9.7	11.0	10.9	11.1	11.7	11.5	12.3	12.3
	Native born		13.4	15.5	15.2	15.2	15.4	15.3	15.3	15.3
Austria	Foreign	5.6	4.9	7.5	7.9	9.7	9.2	8.5	9.7	9.0
	Native born	11.4	11.4	12.3	11.8	11.4	11.9	12.0	11.6	11.8
Belgium	Foreign	16.1	13.8	14.8	15.4	15.8	15.5	15.2	15.3	16.2
	Native born	15.3	14.0	13.4	12.8	13.3	13.2	13.0	13.3	14.0
Cyprus	Foreign		10.9	8.1	11.5	10.0	9.1	8.0	7.1	9.3
	Native born		22.2	22.4	19.4	19.0	18.4	18.4	17.1	17.7
Czech Republic	Foreign		36.9	30.3	21.3	25.8	25.8	23.8	26.1	29.9
	Native born		14.3	15.2	15.4	16.0	17.0	17.4	17.7	16.7
Denmark	Foreign	10.1	6.6	10.2	8.9	12.0	9.8	9.1	8.8	8.4
	Native born	8.3	8.2	8.0	8.4	8.8	8.8	8.8	8.9	8.9
Estonia	Foreign		3.7	4.8	6.5	6.5	5.7	5.3	5.9	5.7
	Native born		9.6	8.3	8.0	8.5	8.8	9.0	9.0	9.4
Finland	Foreign		13.4	15.8	11.6	15.3	12.7	11.6	12.3	12.9
	Native born	14.4	12.9	12.1	12.3	13.0	12.8	12.9	13.1	13.0
France	Foreign	8.9	9.4	10.7	9.0	10.6	12.2	11.3	11.3	10.9
	Native born	11.8	10.2	9.9	10.1	10.4	10.9	11.1	11.0	10.8
Germany	Foreign	8.1	8.8	11.8	11.8	12.2	12.5	12.7	13.1	12.5
	Native born	9.5	10.2	11.2	10.7	10.8	10.8	10.9	10.8	10.6
Greece	Foreign	12.7	8.5	9.1	7.2	7.9	9.6	8.7	9.8	10.5
	Native born	34.1	33.2	31.2	31.1	31.7	32.1	32.9	33.5	33.8
Hungary	Foreign			20.1	15.0	17.6	23.1	17.5	21.8	16.6
	Native born			13.2	11.8	12.0	11.9	11.6	11.2	10.7
Ireland	Foreign		16.5		7.0	7.3	7.8	8.7	8.7	9.0
	Native born		17.9		18.5	18.5	17.6	17.0	16.9	17.8
Italy	Foreign			14.0	14.3	13.2	13.2	12.6	12.3	12.2
	Native born			25.4	24.5	24.3	24.6	24.5	24.6	24.6
Latvia	Foreign				7.1	8.6	6.9	6.4	7.0	7.3
	Native born			9.2	9.2	10.2	10.6	10.9	11.0	11.2
Luxembourg	Foreign	6.6	6.6	6.4	5.1	7.0	7.0	7.7	7.8	8.2
	Native born	12.2	10.6	8.8	7.3	9.2	8.5	8.6	9.0	8.6
Malta	Foreign			14.6	16.3	19.6	20.8	19.0	11.0	15.7
	Native born			13.8	13.7	13.7	14.1	13.4	13.6	13.8
Netherlands	Foreign		9.7	13.5	12.5	12.7	14.2	15.2	15.7	16.0
	Native born		10.4	11.8	12.8	13.1	14.4	14.4	14.8	15.6
Norway	Foreign	3.9	9.3	8.3	8.0	7.1	6.8	5.7	5.7	5.5
	Native born	8.6	7.1	7.1	7.5	7.9	7.6	7.0	6.8	6.9
Poland	Foreign			37.2	33.7	32.0	30.9	32.4	30.3	32.4
	Native born			20.5	18.8	18.8	19.1	19.1	18.9	18.5
Portugal	Foreign		13.4	11.1	14.3	12.7	13.0	12.9	12.7	14.9
	Native born		23.8	24.8	23.8	23.6	22.6	21.2	21.7	21.4
Slovenia	Foreign			16.1	6.2	11.9	16.9	8.5	12.7	9.0
	Native born			10.1	9.9	10.7	12.3	12.6	12.2	12.2
Spain	Foreign	25.4	19.3	8.9	9.7	9.1	9.7	10.1	13.3	14.3
	Native born	21.4	18.0	17.3	17.6	17.0	16.8	16.4	17.1	17.6

(2)	Nationality	1995	2000	2005	2008	2009	2010	2011	2012	2013
Sweden	Foreign		9.0	9.3	9.9	11.9	12.4	11.4	11.3	11.0
	Native born		10.7	10.3	10.2	10.4	10.6	10.2	10.2	10.3
Switzerland	Foreign		9.6	8.2	7.7	7.9	7.8	7.6	7.9	8.3
	Native born		17.0	15.5	15.7	14.6	15.0	15.0	14.9	14.7
United Kingdom	Foreign	13.5	13.6	11.8	12.7	13.3	12.4	14.1	14.6	16.4
	Native born	12.9	11.8	12.7	13.0	13.3	13.8	13.8	14.2	14.0

Source: Eurostat

Table 12. Self-employment and employment changes by age – changes in thousands. 2008Q1-2014Q3

	Self-employed				Employees			
	All	15-54	55-64	65-74	All	15-54	55-64	65-74
EU28	-210.8	-1566.5	994.5	361.2	-925.4	-7778.4	6163.3	689.7
Euro area 19	-769.8	-1500.1	498.2	232.1	-2514.7	-7550.7	4702	334
Austria	20.3	-4.8	19.7	5.4	223.6	110.8	99.7	13.1
Belgium	28.8	2.3	16.4	10.1	76.8	-72.8	140.6	9
Bulgaria	-7.5	-26.4	22.5	-3.6	-218.2	-293.4	65.9	9.3
Croatia	-68.3	-40.8	-9.7	-17.8	113.9	72	38.7	3.2
Cyprus	-12.8	-10.3	-0.1	-2.4	0.9	1.9	-0.4	-0.6
Czech Republic	92.1	32.2	52	7.9	-57.8	-108.3	38.5	12
Denmark	-5.2	-11.1	-1.7	7.6	-54.4	-97.4	21.5	21.5
Estonia	1.7	0	1.1	0.6	-24.9	-44.2	19	0.3
Finland	34.7	10.4	8.6	15.7	-21.1	-50.4	14.3	15
France	312.2	136.1	128.4	47.7	-124.3	-1031.6	837.3	70
Germany	61.8	-309.4	251.4	119.8	2011.6	-51.9	1868.4	195.1
Greece	-230.3	-191	-21.5	-17.8	-746.9	-668.1	-68.4	-10.4
Hungary	-9.7	-43.1	31.3	2.1	347.3	178.7	166.9	1.7
Iceland	1	-0.4	0.4	1	6.3	-0.5	4.9	1.9
Ireland	-45.1	-54.7	3.8	5.8	-164.3	-187.1	20.5	2.3
Italy	-520.5	-657.9	89.4	48	-120.6	-1217.5	1077.4	19.5
Latvia	-1.1	0.1	0	-1.2	-173.3	-160.3	0.4	-13.4
Lithuania	2.5	-7.8	7.1	3.2	-70.1	-103	34.5	-1.6
Luxembourg	8.9	6	2.2	0.7	32.8	23.8	8.9	0.1
Macedonia	11.8	6.3	6.4	-0.9	78.7	57.7	22	-1
Malta	4.4	2.7	0.4	1.3	23.4		4.9	
Netherlands	256.7	148.2	61.9	46.6	-416.1	-642	190.9	35
Norway	3.7	-0.3	-1.1	5.1	145.9	79.2	40.3	26.4
Poland	-32	-257	225.3	-0.3	575.3	-250.2	781.6	43.9
Portugal	-339.9	-210.7	-69.2	-60	-194.9	-291.2	92.1	4.2
Romania	-62.4	-64.6	45.4	-43.2	-233.9	-432.5	216.7	-18.1
Slovakia	47.3	19.1	25.4	2.8	-61.8	-156.4	92.1	2.5
Slovenia	11.3	7.4	3.5	0.4	-60.7	-89.8	27	2.1
Spain	-410.7	-385.8	-30.4	5.5	-2704.6	-2937.6	242.5	-9.5
Sweden	23.9	1.3	-3.6	26.2	334.3	272.8	0.6	60.9
Turkey	316.9	-33.9	277.5	73.3	6108.4	5406.4	586.7	115.3
United Kingdom	628.1	342.9	134.8	150.4	782.8	431	130.8	221

Source: Eurostat

Table 13. Self-employment rates by age, 2008Q1 and 2014Q3 (%)

	All		15-54		55-64		65-74	
	2008	2014	2008	2014	2008	2014	2008	2014
EU 28	15.0	14.9	13.4	13.2	22.0	20.3	50.1	46.4
Euro area 19	14.9	14.7	13.4	13.1	22.7	19.6	52.5	49.8
Austria	11.5	11.3	10.4	10.0	19.4	18.7	30.6	30.2
Belgium	13.0	13.3	11.7	12.0	22.2	19.1	60.4	57.1
Bulgaria	11.4	12.0	10.5	10.8	14.4	16.2	39.5	27.8
Croatia	18.1	13.4	14.6	11.3	30.1	22.0	77.3	50.4
Cyprus	18.0	15.1	15.5	12.6	27.4	27.5	58.9	48.3
Czech Republic	15.5	17.2	15.1	16.1	16.5	21.2	33.3	34.9
Denmark	8.6	8.6	7.4	7.2	12.0	11.1	39.3	34.1
Estonia	8.1	8.6	7.8	8.5	9.6	8.9	7.9	9.9
Finland	12.2	13.5	10.6	11.3	16.7	17.8	50.7	50.9
France	9.9	11.1	8.9	9.9	17.2	16.2	35.6	38.1
Germany	11.0	10.6	9.9	9.1	15.1	14.2	38.1	38.1
Greece	29.2	30.7	25.7	26.6	49.5	54.6	64.3	65.0
Hungary	12.0	10.8	11.0	9.4	18.2	17.3	50.4	51.0
Iceland	12.4	12.4	11.2	11.0	16.9	15.3	19.7	24.4
Ireland	16.7	16.2	14.2	12.9	29.5	28.2	57.6	59.9
Italy	24.3	22.7	22.4	21.1	34.2	25.4	73.3	72.9
Latvia	9.0	10.7	8.7	10.6	9.5	9.4	15.2	18.7
Lithuania	9.7	10.3	9.4	9.7	11.3	12.4	10.5	20.6
Luxembourg	4.5	7.4	3.6	5.9	12.4	15.6	75.0	81.3
Macedonia	18.2	17.5	17.0	16.3	23.0	22.9	58.2	62.5
Malta	13.4	13.7		12.3	22.3	19.0		46.9
Netherlands	12.7	16.0	11.1	14.1	19.8	20.7	51.2	53.8
Norway	7.6	7.3	6.5	6.2	11.0	9.8	25.0	21.8
Poland	19.1	18.2	17.9	16.7	26.7	24.9	48.1	39.4
Portugal	22.3	17.4	16.1	12.5	40.5	28.4	84.7	77.6
Romania	20.4	20.4	15.7	15.9	36.8	32.6	68.6	68.3
Slovakia	13.3	15.4	13.3	15.2	13.2	16.1	20.7	32.9
Slovenia	10.2	12.0	9.0	10.9	19.3	17.1	36.1	33.1
Spain	16.4	16.9	14.6	15.3	28.7	24.9	50.3	56.1
Sweden	10.2	10.0	8.5	7.9	13.6	13.2	45.4	38.0
Switzerland		12.2		9.5		19.7		45.3
Turkey	26.8	21.4	23.5	18.0	60.6	48.7	76.9	64.6
United Kingdom	13.1	14.5	11.7	12.7	18.7	20.6	32.8	35.7

Source: Eurostat

Table 14. Changes in self-employment by education 2008Q1-2014Q3. Ages 15-74 (000s)

	All	Low	Middle	High
EU28	-211	-2,259	7	1,995
Euro area 19	-770	-1,864	44	1,039
Austria	20	-15	-9	44
Belgium	29	-27	7	49
Bulgaria	-8	-11	-5	9
Croatia	-68	-52	-16	-1
Cyprus	-13	-7	-7	1
Czech Republic	92	-5	36	61
Denmark	-5	-3	-7	0
Finland	35	-11	19	27
France	312	-159	145	315
Germany	62	-43	-29	139
Greece	-230	-201	-48	18
Hungary	-10	-3	-24	18
Iceland	1	-2	1	2
Ireland	-45	-49	-9	12
Italy	-521	-485	-111	75
Latvia	-1	-2	-1	2
Lithuania	3	-3	-4	10
Luxembourg	9	0	1	8
Macedonia	12	6	9	-3
Malta	4	1	2	2
Netherlands	257	14	91	150
Norway	4	-3	-1	8
Poland	-32	-190	-131	288
Portugal	-340	-400	29	32
Romania	-62	-51	-33	21
Slovakia	47	1	16	30
Slovenia	11	-7	6	12
Spain	-411	-469	-47	105
Sweden	24	-14	6	34
Turkey	317	58	107	152
United Kingdom	628	-66	137	527

Notes: low = less than primary; primary and lower secondary; - middle = upper secondary and post-secondary; - high = tertiary education
Source: Eurostat

Table 15. Changes in self-employment by occupation, ages 15 and over 2011Q1-2014Q3 (000s)

GEO/TIME	All	Managers	Professionals	Craft & related trades	Technicians & associate profs	Service & sales workers	Elementary occupations
EU28	306	-162	465	-61	280	105	18
Euro area 19	-211	-204	241	-195	183	64	9
Austria	0	-9	8	6	10	-10	2
Belgium	26	14	26	-7	-7	-4	-2
Bulgaria	40	-8	2	12	7	6	10
Cyprus	-10	0	-2	-5	1	-1	-1
Czech Republic	18	5	22	23	-20	6	-1
Denmark	1	-2	0	-12	15	0	7
Finland	18	-6	12	1	11	2	0
France	42	-68	68	-65	11	39	
Germany	34	34	32	55	110	-101	-5
Greece	-178	-44	-18	-46	6	-37	-5
Hungary	6	-24	8	1	1	7	6
Ireland	23	12	-2	1	0	-2	-2
Italy	-274	-24	-11	-91	-28	-19	4
Macedonia	0	-4	-3	0	-3	1	-5
Netherlands	160	-24	69	-13	45	43	18
Poland	-41	-40	47	20	46	-19	4
Portugal	-156	7	-9	-46	11	-15	-11
Romania	-3	-9	7	10	-3	3	-61
Slovakia	-3	-1	3	-15	-6	15	-8
Slovenia	-6	1	2	0	-1	-1	2
Spain	73	-98	59	21	12	138	-6
Sweden	15	10	12	-5	9	-9	1
Switzerland	-25	-2	5	-8	-4	-3	0
Turkey	-186	-256	36	70	31	233	38
United Kingdom	551	111	130	89	39	52	51

Source: Eurostat

Table 16. Changes in self-employment by industry, ages 15 and over, 2008Q1-2014Q3 (000s)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
EU28	-152	-719	-377	-288	-463	159	137	545	232	140	335	177	130
Euro area 19	-723	-397	-354	-331	-303	53	64	274	83	48	224	128	-24
Austria	21	-4	-2	10	1	2	3	10	4	-7	8	0	0
Belgium	28	-16	4	6	-3	11	10	4	11	-1	-1	5	3
Cyprus	-13	-3	-1	-6	-2		1	1	0	0	-1	0	0
Czech Republic	93	4	5	6	-13	10	9	16	3	8	9	-2	10
Denmark	-5	-1	-1	-6	-9	4		8	4		-3	5	2
Finland	35	-2	1	1	2	6	1	8	2	2	2	3	2
France	309	24	-26	32	29	-1		92	-1		34	18	13
Germany	94	-79	-16	61	-64	-2	-5	120	19	36	50	47	-12
Greece	-234	-4	-45	-56	-89	2	0	-2	-1	-4	7	-1	-10
Hungary	-10	9	-2	-8	-19	-2	-1	7	3	1	0	-4	3

-2-	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Ireland	-45	-10	-5	-35	-3	2	1	4	-2	1	3	1	3
Italy	-496	-33	-150	-74	-141	7	8	-57	-3	-30	33	14	-43
Netherlands	263	-18	13	6	38	11	43	48	43	21	33	15	19
Norway	4	-3	1	5	-4	3		-1	3	1	-2	7	0
Poland	-35	-226	14	44	-35	20	20	55	15	3	45	3	19
Portugal	-352	-170	-22	-59	-36	3		2	3	-1	0	-1	3
Slovakia	47	5	2	-4	-2	6	2	8	0	1	22	4	-2
Slovenia	13	-3	1	0	1	4		8	2	1	0	0	0
Spain	-410	-74	-105	-200	-35	1	-23	13	-1	-9	34	18	-8
Sweden	24	-3	-7	6	-7	3		14	6	2	1	3	4
United Kingdom	647	48	-3	-20	-53	68	43	145	115	79	60	47	112

Notes: 1) All sectors 2) Agriculture 3) Manufacturing 4) Construction 5) Wholesale & retail trade 6) Information & communication
7) Financial & insurance 8) Professional, scientific & technical 9) Administrative & support 10) Education 11) Human health
12) Arts, entertainment and recreation 13) Other services

Source: Eurostat

Table 17. Employment stability, 2010 "I might lose my job in the next 6 months" (%)

		Agree	Neither	Disagree
EU27	Employee	12.6	15.8	71.6
	Self-employed	10.5	12.5	77.0
Austria	Employee	9.7	17.3	73.0
	Self-employed	4.1	8.4	87.5
Belgium	Employee	13.4	11.6	75.0
	Self-employed	8.3	10.4	81.4
Bulgaria	Employee	29.0	26.9	44.1
	Self-employed	12.1	27.1	60.8
Cyprus	Employee	11.3	14.5	74.3
	Self-employed	32.6	9.4	57.9
Czech Republic	Employee	32.7	30.6	36.7
	Self-employed	21.3	16.1	62.6
Denmark	Employee	7.1	7.2	85.7
	Self-employed	4.7	4.6	90.7
Estonia	Employee	34.4	21.8	43.8
	Self-employed	9.7	21.4	68.9
Finland	Employee	10.4	11.2	78.4
	Self-employed	11.2	6.0	82.8
France	Employee	7.2	10.5	82.3
	Self-employed	6.4	10.1	83.4
Germany	Employee	7.9	10.5	81.6
	Self-employed	6.4	8.2	85.4
Greece	Employee	15.7	21.5	62.8
	Self-employed	10.5	11.4	78.1
Hungary	Employee	21.3	25.6	53.1
	Self-employed	14.8	13.8	71.4
Ireland	Employee	18.3	12.8	68.9
	Self-employed	18.0	18.2	63.8
Italy	Employee	10.8	18.0	71.2
	Self-employed	9.4	19.0	71.6

(2)		Agree	Neither	Disagree
Latvia	Employee	28.8	21.8	49.4
	Self-employed	15.9	17.7	66.4
Lithuania	Employee	41.2	24.9	33.9
	Self-employed	14.2	25.9	59.9
Luxembourg	Employee	7.0	9.0	84.0
	Self-employed	7.1	12.0	80.9
Malta	Employee	17.1	11.5	71.4
	Self-employed	18.1	12.8	69.1
Netherlands	Employee	10.1	7.6	82.3
	Self-employed	14.1	7.6	78.3
Poland	Employee	15.2	18.2	66.6
	Self-employed	4.3	10.7	84.9
Portugal	Employee	10.4	20.0	69.7
	Self-employed	10.3	13.4	76.3
Romania	Employee	23.7	24.0	52.3
	Self-employed	17.8	11.8	70.4
Slovenia	Employee	22.3	18.3	59.4
	Self-employed	27.0	10.1	62.9
Slovak Republic	Employee	11.8	30.9	57.3
	Self-employed	6.7	14.5	78.8
Spain	Employee	15.9	26.1	58.1
	Self-employed	18.7	19.0	62.3
Sweden	Employee	16.4	11.4	72.2
	Self-employed	18.7	17.3	63.9
United Kingdom	Employee	11.5	14.5	74.1
	Self-employed	12.6	8.2	79.2

Source: Eurofound (2012), Fifth European Working Conditions Survey, Publications Office of the European Union, Luxembourg

Table 18. Would you choose self-employment and why? (%)

	Independence	Income	Freedom
Austria	55	10	28
Belgium	53	16	37
Brazil	35	18	45
Bulgaria	58	16	28
China	20	27	57
Croatia	64	18	27
Cyprus	60	22	32
Czech Republic	67	24	31
Denmark	58	11	41
Estonia	66	14	49
Finland	55	8	45
France	69	12	37
Germany	65	12	24
Greece	64	29	24
Hungary	59	20	17
Iceland	47	7	32
India	75	63	35
Ireland	72	11	43
Israel	48	27	35
Italy	62	17	31
Japan	45	5	34
Latvia	63	13	37
Lithuania	59	30	28
Luxembourg	68	11	34
Malta	61	25	29
Netherlands	67	10	39
Norway	44	10	45
Poland	65	24	23
Portugal	57	15	23
Romania	54	26	26
Russia	58	23	14
Slovakia	58	21	28
Slovenia	54	25	36
South Korea	41	29	47
Spain	66	10	24
Sweden	45	8	52
Switzerland	74	8	30
Turkey	55	15	9
United Kingdom	49	7	40
USA	55	8	31

Q1. "If you could choose between different kinds of jobs, would you prefer to be an employee or self-employed"? (we exclude respondents who said 'none' or 'Don't know' - Q2-4 "why would you choose to be self-employed rather than an employee?" - Column 2 'Personal independence/ self-fulfilment' - Column 3 'Better income prospects' - Column 4 'Freedom to choose place and time of working' (for those who said they would like to be self-employed)

Source: Flash Eurobarometer, 2012

Table 19. Unincorporated and Incorporated Self-employment rates, 1948-2014

Unincorporated							
	self-employed	employed	self-empt rate		self-employed	employed	self-empt rate
1948	10,775	58,343	18.5%	1973	7,255	85,064	8.5%
1949	10,776	57,651	18.7%	1974	7,455	86,794	8.6%
1950	10,359	58,918	17.6%	1975	7,427	85,846	8.7%
1951	9,821	59,961	16.4%	1976	7,428	88,752	8.4%
1952	9,547	60,250	15.8%	1977	7,694	92,017	8.4%
1953	9,556	61,179	15.6%	1978	8,047	96,048	8.4%
1954	9,656	60,109	16.1%	1979	8,384	98,824	8.5%
1955	9,577	62,170	15.4%	1980	8,643	99,303	8.7%
1956	9,459	63,799	14.8%	1981	8,735	100,397	8.7%
1957	9,312	64,071	14.5%	1982	8,898	99,526	8.9%
1958	9,184	63,036	14.6%	1983	9,143	100,834	9.1%
1959	9,242	64,630	14.3%	1984	9,338	105,005	8.9%
1960	9,098	65,778	13.8%	1985	9,269	107,150	8.7%
1961	9,045	65,746	13.8%	1986	9,327	109,597	8.5%
1962	8,802	66,702	13.2%	1987	9,624	112,440	8.6%
1963	8,541	67,762	12.6%	1988	9,917	114,968	8.6%
1964	8,536	69,305	12.3%	1989	10,008	117,342	8.5%
1965	8,394	71,088	11.8%	1990	10,097	118,793	8.5%
1966	8,127	72,895	11.1%	1991	10,274	117,718	8.7%
1967	7,170	74,372	9.6%	1992	9,960	118,492	8.4%
1968	7,087	75,920	9.3%	1993	10,280	120,259	8.5%
1969	7,148	77,902	9.2%	1994	10,648	123,060	8.7%
1970	7,031	78,678	8.9%	1995	10,482	124,900	8.4%
1971	7,077	79,367	8.9%	1996	10,490	126,708	8.3%
1972	7,157	82,153	8.7%	1997	10,513	129,558	8.1%
1998	10,303	131,463	7.8%	2007	10,413	146,047	7.1%
1999	10,087	133,488	7.6%	2008	10,080	145,362	6.9%
2000	10,214	136,891	7.5%	2009	9,831	139,877	7.0%
2001	10,109	136,933	7.4%	2010	9,681	139,064	7.0%
2002	9,926	136,485	7.3%	2011	9,449	139,869	6.8%
2003	10,295	137,736	7.5%	2012	9,529	142,469	6.7%
2004	10,431	139,252	7.5%	2013	9,408	143,929	6.5%
2005	10,464	141,730	7.4%	2015 Jan	9,560	148,201	6.5%
2006	10,586	144,427	7.3%				
Incorporated ('000s)							
2000	4,459			2008	5,784		
2001	4,452			2009	5,466		
2002	4,608			2010	5,191		
2003	4,956			2011	5,127		
2004	5,151			2012	5,253		
2005	5,254			2013	5,311		
2006	5,499			2015 Jan	5,483		
2007	5,735						

Source: BLS.gov

Table 20. US Self-employment rates, by gender and selected demographic characteristics, 1993 and 2012

Age	Women		Men	
	1993	2012	1993	2012
16 to 19 years	2.5	1.0	3.8	3.3
20 to 24 years	2.0	1.3	3.1	2.4
25 to 34 years	6.3	4.5	8.4	6.1
35 to 44 years	8.5	7.8	13.9	11.3
45 to 54 years	10.7	8.6	17.3	14.1
55 to 64 years	13.3	9.4	21.5	17.6
65 years and older	19.7	16.3	35.3	25.7
Race and Hispanic origin				
White	8.8	7.5	13.5	12.2
Black	2.9	3.5	6.1	6.9
Asian	9.6	9.7	13.2	11.5
Other	5.2	6.6	9.1	8.4
Hispanic origin	5.4	6.2	6.9	9.0
Citizenship				
U.S. born	7.9	6.7	12.8	11.3
Foreign born, U.S. citizen	11.3	9.3	17.3	14.7
Foreign born, not a U.S. citizen	8.4	9.0	9.7	10.2
Marital status				
Married with spouse present	11.1	9.1	15.6	14.1
Previously married	5.7	7.7	14.4	13.0
Never married	3.0	3.2	6.1	6.1
Young children at home	8.6	6.3	12.2	9.1

Note: Data for "young children at home" represent the share of individuals under age 55 who have one or more children under 6 years of age in the household.

Source: Current Population Survey, Annual Social and Economic Supplement.

<http://www.bls.gov/opub/mlr/2014/article/female-self-employment-in-the-united-states-an-update-to-2012.htm>

Table 21. Probability of self-employment dprobits in the United States

	All	Unincorporated	Incorporated
Male	.0229 (58.88)	.0049 (15.35)	.0181 (81.23)
7th grade	.0209 (4.93)	.0170 (5.11)	.0043 (1.54)
8th grade	.0494 (17.40)	.0377 (16.67)	.0147 (7.71)
9th grade	.0204 (8.73)	.0185 (10.02)	.0007 (0.50)
10th grade	.0172 (7.82)	.0135 (7.83)	.0060 (4.05)
11th grade	.0085 (4.20)	.0076 (4.78)	.0024 (1.76)
12th grade no diploma	.0099 (4.88)	.0024 (1.56)	.0141 (9.59)
High school diploma	.0030 (2.22)	-.0021 (2.04)	.0109 (11.24)
GED	-.0023 (1.47)	-.0024 (1.92)	.0040 (3.60)
Some college <1 year	.0033 (2.23)	-.0050 (4.52)	.0163 (14.21)
1 or more years college no degree	.0113 (7.97)	-.0008 (0.79)	.0207 (19.01)
Associate's degree	-.0068 (4.84)	-.0121 (11.54)	.0127 (11.80)
Bachelor's degree	.0135 (9.64)	-.0060 (5.82)	.0292 (26.24)
Master's degree	-.0068 (4.88)	-.0161 (15.72)	.0182 (16.11)

(2)	All	Unincorporated	Incorporated
Professional degree	.1369 (58.65)	.0485 (28.44)	.1342 (59.52)
Doctorate	.0271 (13.10)	-.0014 (0.95)	.0438 (25.90)
Age <20	-.0808 (100.77)	-.0528 (86.18)	-.0268 (52.96)
Age 20-24	-.0884 (146.15)	-.0576 (119.82)	-.0304 (86.56)
Age 25-29	-.0804 (137.85)	-.0520 (110.61)	-.0279 (88.93)
Age 30-34	-.0707 (118.85)	-.0460 (96.17)	-.0244 (77.68)
Age 35-39	-.0611 (98.50)	-.0413 (83.59)	-.0199 (60.03)
Age 40-44	-.0545 (87.18)	-.0385 (77.85)	-.0165 (48.65)
Age 45-49	-.0500 (79.31)	-.0364 (73.27)	-.0143 (41.21)
Age 50-54	-.0471 (74.92)	-.0348 (70.33)	-.0130 (37.37)
Age 55-59	-.0408 (62.82)	-.0296 (57.60)	-.0118 (33.14)
Age 60-64	-.0317 (44.25)	-.0228 (39.97)	-.0093 (23.95)
Black or African American	-.0397 (58.93)	-.0228 (41.04)	-.0167 (45.07)
American Indian	-.0335 (16.01)	-.0181 (10.68)	-.0154 (13.48)
Alaska Native	-.0566 (6.20)	-.0367 (5.12)	-.0195 (3.72)
American Indian & Alaska Native	-.0157 (2.95)	-.0004 (0.11)	-.0161 (5.51)
Asian alone	-.0021 (2.49)	-.0078 (10.77)	.0048 (9.72)
Native Hawaiian	-.0386 (7.68)	-.0235 (5.84)	-.0158 (5.61)
Some Other Race alone	-.0209 (19.95)	-.0099 (11.66)	-.0131 (21.68)
Two or More Races	-.0093 (6.70)	-.0051 (4.52)	-.0045 (5.74)
Hispanic	-.0178 (24.83)	-.0102 (17.46)	-.0088 (21.76)
Construction	.1519 (157.05)	.1132 (134.18)	.0591 (98.92)
Agriculture	.2970 (148.23)	.2591 (143.23)	.1020 (73.21)
Pseudo R ²	.0963	.0868	.1081
N	2,086,673	2,010,958	1,955,575

Source: 2013 American Community Survey. Excluded categories, Less than 7th grade education; age 65 and over and white. All equations also include 50 state dummies. Column 2 excludes the incorporated while column 3 excludes the unincorporated self-employed. T-statistics in parentheses.

Table 22. Self-employment in UK by Occupation

	2009		2014		Change 2009-14	
	Thousands	%	Thousands	%	Thousands	%
Managers, Directors And Senior Officials	502	13.3	739	16.1	237	47.2
Professional Occupations	627	16.6	748	16.3	121	19.2
Associate Professional And Technical Occupations	570	15.0	674	14.8	104	18.3
Administrative And Secretarial Occupations	122	3.2	143	3.1	20	16.7
Skilled Trades Occupations	1,111	29.3	1,221	26.7	110	9.9
Caring, Leisure And Other Service Occupations	243	6.4	311	6.8	68	28.1
Sales And Customer Service Occupations	81	2.1	105	2.3	24	29.3
Process, Plant And Machine Operatives	326	8.6	342	7.5	16	5.0
Elementary Occupations	206	5.4	286	6.3	80	38.6
Total	3,790	100.0	4,573	100.0	783	20.7

Source: Self-employed workers in the UK, 2014 http://www.ons.gov.uk/ons/dcp171776_374941.pdf

Table 23. Changes in UK self-employment by Industry

Major Industry Section	2009		2014		Change 2009-14	
	Thousands	%	Thousands	%	Thousands	%
Agriculture, forestry and fishing	173	4.6	210	4.6	37	21.6
Mining and quarrying	4	0.1	9	0.2	5	130.7
Manufacturing	176	4.6	204	4.5	28	15.7
Electricity, gas, air cond supply	3	0.1	7	0.2	4	126.3
Water supply, sewerage, waste	10	0.3	12	0.3	2	19.6
Construction	852	22.5	895	19.6	43	5.0
Wholesale, retail, repair of vehicles	370	9.8	409	8.9	39	10.5
Transport and storage	266	7.0	268	5.9	2	0.9
Accommodation and food services	126	3.3	138	3.0	12	9.3
Information and communication	143	3.8	211	4.6	68	47.8
Financial and insurance activities	66	1.7	96	2.1	30	45.7
Real estate activities	43	1.1	70	1.5	27	63.3
Prof, scientific, technical activities.	439	11.6	558	12.2	119	27.1
Admin and support services	236	6.2	324	7.1	88	37.4
Public admin and defence	27	0.7	35	0.8	9	32.7
Education	187	4.9	238	5.2	51	27.1
Health and social work	258	6.8	319	7.0	61	23.8
(2) Major Industry Section	2009		2014		Change 2009-14	
	Thousands	%	Thousands	%	Thousands	%
Arts, entertainment and recreation	156	4.1	209	4.6	53	33.9
Other service activities	211	5.6	292	6.4	81	38.2
Households as employers	28	0.7	55	1.2	27	96.6
Extra-territorial organisations	2	0.1	1	0.0	-1	-41.0
Total	3,790	100.0	4,573	100.0	784	20.7

Source: Self-employed workers in the UK, 2014 http://www.ons.gov.uk/ons/dcp171776_374941.pdf

Table 24. Self-employment rates by region, 2009 and 2013 (%)

Major Industry Section	2009		2013		Change 2009-13	
	Thousands	%	Thousands	%	Thousands	%
North East	112	9.6	125	10.8	13	1.1
North West	363	11.6	426	13.5	62	1.9
Yorkshire & Humber	290	11.9	312	12.5	22	0.7
East Midlands	239	11.1	258	12.1	19	1.0
West Midlands	288	11.8	337	13.7	49	1.9
East of England	395	14.1	442	15.0	47	0.9
London	571	15.3	679	17.3	108	2.0
South East	577	13.8	676	15.8	98	2.0
South West	383	15.1	424	16.6	41	1.5
Wales	174	13.2	192	14.1	17	1.0
Scotland	268	10.6	286	11.5	17	0.9

Source: Self-employed workers in the UK, 2014 http://www.ons.gov.uk/ons/dcp171776_374941.pdf

Table 25. Probability of self-employment dprobits in the United Kingdom

	All self-employed		No employees		With employees	
	2007	2013/14	2007	2013/14	2007	2013/14
Male	.0593 (41.53)	.0597 (36.37)	.0417 (32.25)	.0457 (29.73)	.0191 (29.80)	.0172 (25.34)
Age <20	-.1206 (47.64)	-.1370 (41.81)	-.0945 (43.83)	-.1143 (38.53)	-.0253 (16.38)	-.0228 (12.76)
Age 20-24	-.1221 (53.48)	-.1417 (55.45)	-.0953 (47.86)	-.1179 (50.05)	-.0267 (26.31)	-.0249 (25.89)
Age 25-29	-.1159 (48.34)	-.1333 (51.60)	-.0909 (43.53)	-.1103 (46.05)	-.0245 (25.68)	-.0242 (28.04)
Age 30-34	-.1040 (40.27)	-.1274 (48.13)	-.0835 (37.65)	-.1061 (43.34)	-.0202 (19.11)	-.0226 (26.13)
Age 35-39	-.0957 (35.04)	-.1141 (41.12)	-.0784 (33.61)	-.0958 (37.49)	-.0175 (15.25)	-.0199 (21.93)
Age 40-44	-.0934 (33.62)	-.1077 (38.09)	-.0786 (33.45)	-.0922 (35.68)	-.0152 (12.50)	-.0175 (18.38)
Age 45-49	-.0912 (32.83)	-.1054 (37.04)	-.0779 (33.41)	-.0916 (35.36)	-.0137 (11.06)	-.0162 (16.43)
Age 50-54	-.0839 (29.48)	-.1007 (34.95)	-.0711 (29.66)	-.0872 (33.21)	-.0131 (10.47)	-.0158 (16.02)
Age 55-59	-.0785 (26.96)	-.0915 (30.56)	-.0656 (26.58)	-.0789 (28.93)	-.0132 (10.64)	-.0145 (14.18)
Age 60-64	-.0604 (18.57)	-.0749 (22.56)	-.0502 (18.05)	-.0632 (20.74)	-.0110 (8.16)	-.0133 (12.13)
Degree	.0107 (4.09)	.0026 (0.76)	.0034 (1.46)	-.0057 (1.76)	.0065 (5.61)	.0084 (5.64)
Higher education	-.0116 (3.97)	-.0063 (1.61)	-.0106 (4.07)	-.0064 (1.78)	-.0017 (1.37)	-.0008 (0.54)
A-level	.0062 (2.43)	.0107 (2.97)	.0018 (0.80)	.0056 (1.68)	.0044 (3.94)	.0055 (3.68)
GCSE A-C	-.0118 (4.57)	-.0085 (2.36)	-.0090 (3.91)	-.0097 (2.94)	-.0032 (2.94)	.0010 (0.68)
Other qualification	-.0218 (8.11)	-.0113 (2.82)	-.0158 (6.56)	-.0119 (3.25)	-.0072 (6.50)	-.0005 (0.32)
Mixed	.0426 (4.26)	.0199 (2.21)	.0420 (4.69)	.0162 (1.96)	.0007 (0.15)	.0050 (1.26)
Asian	.0629 (15.36)	.0347 (8.85)	.0317 (8.65)	.0208 (5.73)	.0374 (17.58)	.0184 (10.34)
Black	-.0299 (6.03)	-.0309 (5.69)	-.0221 (5.04)	-.0272 (5.47)	-.0082 (3.72)	-.0048 (2.09)
Chinese	.0462 (4.00)	.0248 (1.98)	-.0131 (1.29)	-.0046 (0.40)	.0622 (9.88)	.0310 (5.40)
Other	.0075 (1.18)	.0185 (2.58)	-.0081 (1.45)	.0068 (1.04)	.0162 (5.14)	.0122 (3.85)
Construction	.2430 (79.13)	.2542 (70.02)	.2325 (79.49)	.2453 (69.72)	.0368 (25.44)	.0365 (22.29)
Agriculture	.3841 (49.87)	.4129 (44.79)	.3567 (47.63)	.3740 (40.71)	.1214 (25.75)	.1716 (28.69)
Pseudo R ²	.1215	.1095	.1219	.1065	.1046	.1028
N	215,768	186,051	209,247	181,077	193,519	162,764

Source: Labour Force Surveys, Jan-Dec 2007 & Oct 2013-Sept 2014. Excluded white; age >65 and no qualification. Column 2 excludes the self-employed with employees and column 3 excludes those without employees.

Table 26. Probability of self-employment OECD; Eastern Europe & LDCs

	All		Eastern Europe & LDCs	
	No employees	With employees	No employees	With employees
Age	.0026 (16.85)	.0018 (11.97)	.0023 (6.47)	.0011 (6.81)
Male	.0299 (7.80)	.0478 (12.16)	.0245 (4.19)	.0270 (6.50)
Years of schooling	-.0042 (8.37)	.0006 (1.31)	-.0080 (10.28)	.0019 (5.01)
Country dummies	35	35	18	18
Pseudo R ²	.0900	.0600	.0991	.0543
N	26013	24357	13803	12574

Source: ISSP 2012. T-statistics in parentheses.

Notes: estimated as dprobits. In 'with employees' equations the 'self-employed without employees' are excluded from the sample and vice versa. Countries are - Argentina*; Australia; Austria; Bulgaria*; Canada; Chile*; China*; Taiwan*; Croatia*; Czech Republic*; Denmark; Finland; France; Germany; Iceland; India*; Ireland; Israel; Japan; South Korea*; Latvia*; Lithuania*; Mexico*; Norway; Philippines*; Poland*; Russia*; Slovakia*; Slovenia*; Spain; Sweden; Switzerland; Turkey*; United Kingdom; United States; Venezuela*. *=Eastern European & Less Developed Countries (LDCs)

Table 27. Self-employment probability and life satisfaction in Europe, 2011-2013

	Self-employment	Life satisfaction		Self-employment	Life satisfaction
Self-employed	n/a	.0411 (7.34)	Germany	.0950 (11.77)	-.0102 (-0.96)
Unemployed	n/a	-.3736 (72.54)	Greece	.0612 (7.66)	-.4701 (43.75)
Inactive	n/a	-.0879 (18.97)	Hungary	.0446 (5.82)	.2488 (23.26)
Male	.0732 (37.09)	-.0202 (7.15)	Iceland	-.0147 (1.99)	.4327 (40.54)
Age <20	-.2880 (22.76)	.1158 (11.19)	Ireland	.0379 (5.31)	.0970 (9.09)
Age 20-24	-.2725 (37.10)	.0776 (9.69)	Italy	.0890 (9.41)	.0570 (4.36)
Age 25-29	-.2518 (37.31)	.0100 (1.39)	Latvia	.0698 (9.73)	-.0719 (6.74)
Age 30-34	-.2221 (33.74)	-.0221 (3.19)	Lithuania	.0245 (3.28)	-.2657 (24.95)
Age 35-39	-.1913 (29.32)	-.0609 (8.95)	Luxembourg	.0121 (1.59)	-.4640 (43.62)
Age 40-44	-.1758 (26.92)	-.0957 (14.02)	Macedonia	.0412 (5.55)	-.2807 (26.38)
Age 45-49	-.1677 (25.78)	-.1246 (18.59)	Malta	.0134 (1.76)	-.2643 (24.90)
Age 50-54	-.1675 (25.64)	-.1341 (20.45)	Montenegro	.0447 (4.27)	.1762 (13.44)
Age 55-59	-.1546 (23.19)	-.1200 (18.96)	Netherlands	.0788 (10.12)	-.0897 (8.36)
Age 60-64	-.1068 (14.55)	-.0493 (8.58)	Poland	.0530 (7.35)	-.1945 (18.19)
ALS <15	-.0470 (2.56)	-.3129 (33.16)	Portugal	.1114 (14.28)	.0434 (4.11)
ALS 16-19	-.0545 (3.01)	-.1967 (22.17)	Romania	.0262 (3.49)	-.6683 (62.75)
ALS 20+	-.0393 (2.17)	-.0395 (4.30)	Serbia	.0886 (11.52)	-.5318 (50.33)
ALS refused		-.3846 (21.67)	Slovakia	.2678 (26.46)	-.2325 (18.05)
ALS DK	.0172 (0.78)	-.2263 (10.44)	Slovenia	.0500 (5.73)	-.1409 (12.32)
Still studying	-.0361 (1.79)	-.2711 (17.74)	Spain	.2123 (25.39)	-.5712 (45.05)
Austria	.0402 (5.38)	.1999 (18.93)	Sweden	.1217 (10.99)	-.3527 (26.27)
Belgium	.0976 (13.17)	.4029 (37.91)	Turkish Cyprus	.0700 (7.41)	-.4912 (35.53)
Bulgaria	.0441 (6.37)	.1425 (14.76)	Turkey	.0913 (7.60)	-.7495 (41.84)
Croatia	.1572 (21.45)	-.2543 (23.89)	UK	.0737 (6.95)	.4629 (28.47)
Cyprus	.0145 (1.60)	.3479 (26.67)	Constant	.2821	32.378
Czech Republic	-.0003 (0.05)	.5695 (53.15)			
Denmark	.0984 (12.90)	.1797 (16.86)	N	128,775	269,131
Estonia	.0565 (7.79)	.3540 (35.41)	Pseudo/Adjusted R ²	.0619	.2375
Finland	.3305 (42.38)	-.6226 (58.18)			

Source: Eurobarometers #80.2; #80.1; #79.4; #79.3; #78.1; #77.4; #76.3; #75.4 and #75.3. Controls include 2 year dummies. Column 1 restricted to workers only excluded category France an ft education & in column 2 is employee. Column 1 estimated as a dprobit, column 2 as an OLS includes everyone over age 15. T-statistics in parentheses.

Table 28. Life-satisfaction; happiness and job satisfaction and self-employment with and without employees in Europe

	Life satisfaction	Happiness	Job satisfaction
Self-employed no employees	.0162 (0.35)	.0214 (0.50)	.2052 (4.34)
Self-employed with employees	.3183 (4.52)	.2333 (3.62)	.7299 (10.28)
At work child care	.1697 (2.00)	.3088 (3.99)	-.2528 (2.88)
Family farm	.1417 (1.14)	.2622 (2.31)	
Unemployed <12mths	-.9982 (17.50)	-.6724 (12.92)	
Unemployed ≤12mths	-1.2156 (25.16)	-.8437 (19.12)	
Disability	-1.2918 (18.10)	-1.1692 (17.95)	
Retired	-.2309 (5.32)	-.2411 (6.08)	
Homemaker	-.0423 (1.01)	-.0078 (0.20)	
FT education	-.0644 (1.12)	-.0519 (0.99)	
Other LF status	-.5213 (4.96)	-.3822 (4.00)	
Age <20	.2738 (3.17)	.5108 (6.48)	-.6394 (2.86)
Age 20-24	.0492 (0.78)	.3515 (6.14)	-.8478 (5.67)
Age 25-29	-.0902 (1.57)	.2386 (4.54)	-.8200 (5.70)
Age 30-34	-.2251 (4.02)	.1812 (3.55)	-.8022 (5.64)
Age 35-39	-.3362 (6.10)	.0412 (0.82)	-.8084 (5.71)
Age 40-44	-.4836 (8.91)	-.0788 (1.59)	-.8480 (6.01)
Age 45-49	-.4164 (7.73)	-.0732 (1.49)	-.8010 (5.67)
Age 50-54	-.4251 (8.03)	-.1127 (2.33)	-.7077 (4.99)
Age 55-59	-.3762 (7.68)	-.0989 (2.21)	-.6605 (4.61)
Age 60-64	-.1201 (2.91)	.0351 (0.93)	-.3391 (2.22)
Male	-.0292 (1.41)	-.0097 (0.51)	-.0066 (0.22)
Austria	.3670 (4.78)	.1998 (2.84)	.7350 (7.01)
Belgium	.2871 (3.74)	.3071 (4.39)	.4607 (4.05)
Bulgaria	-1.7575 (22.63)	-1.3289 (18.71)	-.4074 (3.46)
Croatia	-.2999 (3.88)	-.0319 (0.45)	.0292 (0.25)
Cyprus	.0518 (0.67)	.1813 (2.57)	.5437 (4.65)
Czech Republic	-.8059 (10.43)	-.3558 (5.06)	.3099 (2.96)
Denmark	1.1483 (14.94)	.8057 (11.51)	1.0167 (9.35)
Estonia	-.9692 (12.38)	-.5841 (8.20)	.1085 (0.91)
Finland	.8324 (10.85)	.7262 (10.39)	.6872 (6.28)
Macedonia	-.4782 (6.18)	-.2786 (3.96)	-.3325 (2.84)
Germany	.0777 (1.36)	.0508 (0.98)	.4219 (4.97)
Greece	-.9614 (12.42)	-.8665 (12.29)	-.6652 (5.47)
Hungary	-1.3268 (17.27)	-.4412 (6.30)	-.1066 (0.94)
Iceland	.9741 (12.52)	.7945 (11.21)	.6903 (6.91)
Ireland	.3288 (4.30)	.3887 (5.58)	.2765 (2.46)
Italy	-.3101 (5.09)	-.2920 (5.26)	-.0629 (0.71)
Kosovo	-1.0560 (13.71)	-1.1793 (16.75)	-.9024 (8.08)
Latvia	-1.0480 (13.50)	-.8591 (12.10)	-.1150 (1.01)
Lithuania	-.6763 (9.11)	-.5957 (8.79)	-.0378 (0.34)
Luxembourg	.6179 (7.89)	.4148 (5.81)	.5287 (4.88)
Malta	.1130 (1.44)	-.1275 (1.79)	.4520 (3.98)
Montenegro	-.0823 (1.06)	.2439 (3.42)	.0720 (0.59)
Netherlands	.4727 (6.12)	.3440 (4.88)	.5477 (5.05)
Poland	-.0858 (1.41)	-.0656 (1.18)	-.2922 (3.22)

(2)	Life satisfaction	Happiness	Job satisfaction
Portugal	-.2997 (3.84)	-.0530 (0.75)	.1148 (0.94)
Romania	-.6134 (9.08)	-.5856 (9.50)	.6156 (5.83)
Serbia	-.7110 (9.15)	-.1950 (2.75)	-.2382 (1.99)
Slovakia	-.9076 (11.68)	-.6057 (8.56)	.0675 (0.61)
Slovenia	-.2426 (3.14)	-.2638 (3.74)	.0539 (0.46)
Spain	.4082 (5.91)	.4663 (7.41)	-.0599 (0.58)
Sweden	.7724 (10.02)	.3845 (5.46)	.4085 (3.84)
Turkey	-.4417 (6.75)	-.4648 (7.79)	-.3432 (3.12)
UK	.2141 (3.47)	.3687 (6.56)	.3216 (3.59)
Constant	71.282	68.286	73.053
Adjusted R ²	.1312	.1066	.0694
N	43,497	43,368	19,288

Source: European Quality of Life Survey, 2011 – all equations also include 9 schooling dummies. Estimated by OLS; excluded category 65, employees + and France. Columns 3-5 are only for workers.

Table 29. Happiness and Job Satisfaction and self-employment; OECD: Eastern Europe and in LDCs

	Happiness		
	OECD	Eastern Europe	LDCs
Self-employed no employees	.0477 (1.53)	.1058 (2.12)	.0761 (2.41)
Self-employed with employees	.1307 (3.29)	.1209 (1.74)	.1369 (2.89)
Family firm	.0047 (0.28)	.0736 (0.72)	.0413 (0.74)
Unemployed	-.4801 (15.31)	-.4405 (11.31)	-.2619 (7.22)
Student	-.0854 (2.31)	-.0169 (0.28)	.0780 (1.87)
Apprentice	-.2443 (3.04)	-.0269 (0.11)	-.1249 (0.90)
Disabled	-.6443 (14.36)	-.3492 (6.77)	-.3994 (5.57)
Retired	-.0544 (2.04)	-.1731 (4.12)	.0403 (1.16)
Homeworker	.0712 (2.34)	.1010 (1.74)	.0883 (3.04)
Military service	.0687 (0.34)		-.3143 (0.80)
Other If	-.1937 (4.37)	.1619 (1.84)	-.1353 (3.40)
No answer	-.1800 (2.60)	-.1202 (0.80)	.0715 (0.82)
Age <20	.1673 (3.09)	.7706 (9.60)	-.0638 (1.08)
Age 20-24	.0223 (0.59)	.4864 (8.09)	.0200 (0.47)
Age 25-29	.0969 (2.72)	.3826 (6.85)	-.0515 (1.26)
Age 30-34	.0702 (2.08)	.3030 (5.55)	-.0143 (0.36)
Age 35-39	.0278 (0.84)	.1248 (2.35)	-.1137 (2.92)
Age 40-44	-.0488 (1.50)	.1215 (2.32)	-.1066 (2.74)
Age 45-49	-.1402 (4.39)	.0402 (0.77)	-.1224 (3.17)
Age 50-54	-.1156 (3.64)	-.0244 (0.48)	-.0649 (1.65)
Age 55-59	-.0869 (2.82)	-.0474 (1.03)	-.0920 (2.39)
Age 60-64	-.0565 (2.05)	.0623 (1.61)	-.0028 (0.07)
Male	-.0006 (0.05)	.0396 (2.04)	-.0487 (2.64)
Years of schooling	.0096 (5.81)	.0339 (10.24)	.0282 (13.39)
Country dummies	16	8	9
Constant	53.170	43.083	54.287
Adjusted R ²	.0421	.1567	.0819
N	22316	10478	17529

(2)	Job satisfaction		
	OECD	Eastern Europe	LDCs
Self-employed no employees	.1761 (4.61)	.3648 (5.84)	.0779 (2.25)
Self-employed with employees	.4224 (8.73)	.4302 (4.94)	.3315 (6.52)
Family firm	-.1520 (2.77)	.3053 (2.34)	.1800 (3.01)
Unemployed			
Student			
Apprentice			
Disabled			
Retired			
Homeworker			
Military service			
Other If			
No answer			
Age <20	-.4394 (3.55)	-1.0249 (3.72)	-.0143 (0.12)
Age 20-24	-.4257 (6.20)	-.4416 (2.58)	-.1292 (1.71)
Age 25-29	-.3498 (5.56)	-.4524 (2.76)	-.1188 (1.68)
Age 30-34	-.2889 (4.77)	-.4220 (2.59)	-.0053 (0.08)
Age 35-39	-.3716 (6.22)	-.5388 (3.34)	-.0884 (1.30)
Age 40-44	-.2965 (5.04)	-.4630 (2.88)	-.0936 (1.40)
Age 45-49	-.3816 (6.55)	-.5032 (3.11)	-.1147 (1.70)
Age 50-54	-.3223 (5.50)	-.5114 (3.17)	.0469 (0.66)
Age 55-59	-.2487 (4.18)	-.5179 (3.17)	.0256 (0.35)
Age 60-64	-.1759 (2.79)	-.4334 (2.49)	.1522 (1.88)
Male	-.0209 (1.00)	.0701 (2.12)	.0053 (0.20)
Years of schooling	.0104 (3.77)	.0597 (9.78)	.0289 (8.90)
Country dummies	156	8	9
Constant	64.039	58.423	61.906
Adjusted R ²	.0499	.0506	.1061
N	12683	5489	8745

Source: ISSP 2012. Notes: Excluded category employees; 65T-statistics in parentheses

Table 30. Optimism, Job Satisfaction and Work/life balance in Europe

	Optimism	Positive	Decide
Self-employed no employees	.0573 (2.51)	.0445 (2.31)	.0864 (3.98)
Self-employed with employees	.1855 (7.36)	.1162 (5.46)	.1373 (5.74)
Age <20	.1132 (1.64)	.0016 (0.03)	-.0612 (0.93)
Age 20-24	.1179 (2.79)	.0531 (1.49)	.0683 (1.71)
Age 25-29	.1017 (2.58)	.0266 (0.80)	.0104 (0.28)
Age 30-34	.0327 (0.85)	.0110 (0.34)	.0027 (0.07)
Age 35-39	.0229 (0.60)	.0287 (0.89)	-.0647 (1.79)
Age 40-44	-.0085 (0.23)	.0252 (0.79)	-.1123 (3.13)
Age 45-49	-.0564 (1.49)	.0493 (1.55)	-.1390 (3.88)
Age 50-54	-.0463 (1.22)	.0556 (1.74)	-.1158 (3.23)
Age 55-59	-.0656 (1.71)	.0599 (1.86)	-.0760 (2.10)
Age 60-64	-.0718 (1.75)	.0714 (2.06)	-.1036 (2.67)
Male	.0706 (5.62)	.0794 (7.48)	.0456 (3.82)

(2)	Optimism	Positive	Decide
Years of schooling	.0058 (3.38)	.0067 (4.61)	-.0002 (0.15)
Minority	-.0203 (0.88)	.0631 (3.23)	-.0832 (3.79)
Albania	.6364 (10.93)	.5726 (11.63)	-.0185 (0.33)
Belgium	.1231 (2.96)	.0967 (2.76)	-.1349 (3.41)
Bulgaria	.2159 (5.22)	.4390 (12.57)	-.1623 (4.13)
Cyprus	.2644 (5.39)	.4410 (10.69)	-.4868 (10.48)
Czech Republic	.0933 (2.26)	.0668 (1.91)	-.4733 (12.05)
Denmark	.5000 (11.75)	.4733 (13.17)	-.1580 (3.91)
Estonia	.2516 (6.40)	.3346 (10.08)	-.2331 (6.25)
Finland	.3571 (8.98)	.4236 (12.62)	-.0793 (2.10)
Germany	.4648 (12.39)	.5029 (15.87)	-.2976 (8.35)
Great Britain	.2217 (5.49)	.2549 (7.48)	-.1809 (4.72)
Hungary	-.0381 (0.92)	.0423 (1.21)	-.4673 (11.86)
Iceland	.3682 (6.80)	.3376 (7.39)	-.1511 (2.94)
Ireland	.3811 (9.48)	.4113 (12.12)	-.1659 (4.34)
Israel	.5006 (11.12)	.6047 (15.90)	-.0936 (2.19)
Italy	.0016 (0.03)	.3260 (7.42)	-.3399 (6.86)
Kosovo	.7205 (12.80)	.6930 (14.55)	.0284 (0.53)
Lithuania	.2539 (6.29)	.1116 (3.27)	-.3372 (8.81)
Netherlands	.1545 (3.70)	.2076 (5.89)	-.1101 (2.78)
Norway	.4174 (10.18)	.2362 (6.83)	-.0177 (0.46)
Poland	.2570 (6.18)	.3918 (11.15)	-.2440 (6.18)
Portugal	.0811 (1.88)	.5570 (15.27)	-.2640 (6.43)
Romania	.3271 (8.53)	.4261 (13.17)	-.1992 (5.48)
Slovakia	.1762 (4.19)	.3060 (8.61)	-.3590 (8.98)
Slovenia	.4202 (8.58)	.5608 (13.57)	-.1582 (3.40)
Spain	.1348 (3.16)	.4555 (12.64)	-.5221 (12.88)
Sweden	.4812 (11.86)	.4605 (13.44)	-.2009 (5.21)
Swiss	.4885 (11.54)	.4342 (12.15)	-.1331 (3.31)
Ukraine	.3603 (8.44)	.2850 (7.89)	-.2791 (6.87)
Constant	38.725	33.716	41.076
Adjusted R ²	.0448	.0566	.0348
N	25250	25224	25267

	Energy	Job Satisfaction	Work/life balance
Self-employed no employees	.0459 (2.23)	.4420 (8.61)	.1616 (2.87)
Self-employed with employees	.1145 (5.03)	.6886 (12.16)	.0539 (0.87)
Age <20	.0596 (0.96)	-.6336 (4.09)	-.8410 (4.94)
Age 20-24	.0474 (1.24)	-.6446 (6.76)	-.8542 (8.18)
Age 25-29	.0224 (0.63)	-.5284 (5.95)	-.9023 (9.29)
Age 30-34	-.0318 (0.91)	-.4624 (5.31)	-.9589 (10.05)
Age 35-39	-.0476 (1.38)	-.5309 (6.17)	-.9424 (10.00)
Age 40-44	-.0487 (1.43)	-.5006 (5.86)	-.9506 (10.16)
Age 45-49	-.0750 (2.20)	-.4703 (5.51)	-.8174 (8.75)
Age 50-54	-.0827 (2.42)	-.4636 (5.43)	-.7429 (7.94)
Age 55-59	-.0848 (2.45)	-.3768 (4.36)	-.6548 (6.92)
Age 60-64	-.0882 (2.38)	-.2258 (2.44)	-.5059 (4.99)
Male	.1097 (9.67)	.0262 (0.93)	.0247 (0.80)

(2)	Energy	Job Satisfaction	Work/life balance
Years of schooling	.0040 (2.60)	.0079 (2.03)	-.0086 (2.02)
Minority	-.0673 (3.22)	-.2966 (5.69)	-.2734 (4.78)
Albania	-.0957 (1.82)	-.0769 (0.59)	.2147 (1.50)
Belgium	-.2442 (6.51)	.2132 (2.29)	.0346 (0.34)
Bulgaria	.0118 (0.32)	-.4449 (4.79)	-.2617 (2.57)
Cyprus	.1838 (4.17)	.2923 (2.67)	.3831 (3.17)
Czech Republic	.0305 (0.82)	.2210 (2.37)	.3585 (3.53)
Denmark	-.1082 (2.82)	.7317 (7.68)	.7797 (7.46)
Estonia	-.0746 (2.11)	-.1637 (1.86)	-.2024 (2.10)
Finland	-.2646 (7.38)	.3519 (3.95)	.2719 (2.79)
Germany	-.0248 (0.73)	-.0132 (0.16)	-.4998 (5.43)
Great Britain	-.3342 (9.19)	-.0855 (0.95)	-.0390 (0.39)
Hungary	-.2721 (7.27)	-.3215 (3.46)	-.3783 (3.72)
Iceland	-.1271 (2.61)	.4449 (3.67)	.2865 (2.15)
Ireland	-.0186 (0.52)	-.1741 (1.93)	-.0731 (0.74)
Israel	-.0434 (1.07)	.3813 (3.76)	.2299 (2.07)
Italy	-.2692 (5.74)	-.2239 (1.91)	-.2862 (2.22)
Kosovo	-.1378 (2.72)	-.1863 (1.46)	.2391 (1.71)
Lithuania	-.3182 (8.73)	.0296 (0.32)	.324 (3.25)
Netherlands	-.0432 (1.15)	.3072 (3.28)	.2187 (2.14)
Norway	-.1664 (4.50)	.4806 (5.24)	.2719 (2.70)
Poland	-.0248 (0.66)	.1326 (1.42)	-.3683 (3.60)
Portugal	-.0658 (1.69)	-.2811 (2.90)	-.3582 (3.38)
Romania	-.1261 (3.64)	-.6186 (7.19)	-.5347 (5.67)
Slovakia	-.1071 (2.83)	-.5181 (5.46)	-.4986 (4.80)
Slovenia	.2164 (4.90)	-.0616 (0.56)	.3630 (2.98)
Spain	-.5833 (15.15)	-.0053 (0.06)	-.3981 (3.78)
Sweden	-.2213 (6.05)	.2880 (3.17)	-.0760 (0.76)
Swiss	.1442 (3.78)	.5508 (5.81)	.3279 (3.16)
Ukraine	-.0520 (1.34)	-.7112 (7.40)	-.5220 (4.93)
Constant	32.558	77.170	87.600
Adjusted R ²	.0464	.0660	.0458
N	25134	25032	24984

Source: European Social Survey, #6, 2013. Notes: Excluded category employees; 65. All equations include 90 industry dummies. T-statistics in parentheses. Sample is workers only.

Notes: Q1. I am always optimistic about the future - Strongly disagree (=1); Disagree (=2); Neither agree nor disagree (=3); Agree (=4); Strongly agree (=5). Q2. In general I feel positive about myself - Strongly disagree (=1); Disagree (=2); Neither agree nor disagree (=3); Agree (=4); Strongly agree (=5). Q3. I feel I am free to decide for myself how to live my life - Strongly disagree (=1); Disagree (=2); Neither agree nor disagree (=3); Agree (=4); Strongly agree (=5). Q4. And please tell me how much of the time during the past week... you had a lot of energy? None or almost none of the time (=1); Some of the time (=2); Most of the time (=3); All or almost all of the time (=4). Q5. All things considered, how satisfied are you with your present job? Extremely dissatisfied (=0) 'Extremely Satisfied (=10) Q6. How satisfied are you with the balance between the time you spend on your paid work and the time you spend on other aspects of your life? Extremely dissatisfied (=0)..... 'Extremely Satisfied (=10)

Table 31. Happiness of the self-employed, UK 2010-2012

	All workers	Employees	Self-employed
Self-employed with employees	.0314 (1.94)		
Self-employed no employees	.0938 (2.80)		-.0820 (2.12)
Months of tenure	.0002 (5.41)	.0003 (6.06)	.0000 (0.72)
Ages 20-24	-.3067 (5.99)	-.2998 (5.76)	-.5489 (1.83)
Ages 25-29	-.4643 (9.38)	-.4539 (8.99)	-.7601 (2.62)
Ages 30-34	-.5141 (10.42)	-.5147 (10.21)	-.7071 (2.46)
Ages 35-39	-.5729 (11.57)	-.5706 (11.26)	-.8259 (2.87)
Ages 40-44	-.6707 (13.58)	-.6636 (13.13)	-.9596 (3.34)
Ages 45-49	-.7397 (14.93)	-.7212 (14.21)	-1.1053 (3.85)
Ages 50-54	-.7210 (14.44)	-.7148 (13.96)	-1.0105 (3.52)
Ages 55-59	-.6568 (13.01)	-.6384 (12.29)	-1.0080 (3.50)
Ages 60-64	-.4184 (8.07)	-.3849 (7.18)	-.8106 (2.81)
Ages 65 and over	-.0761 (1.39)	-.0272 (0.47)	-.4377 (1.51)
Male	-.0698 (5.94)	-.0587 (4.63)	-.1303 (3.95)
Professional	-.0017 (0.09)	-.0160 (0.73)	.0634 (1.29)
Associate Prof Technical	-.0456 (2.19)	-.0661 (2.86)	.0499 (1.01)
Administrative Secretarial	-.0690 (3.10)	-.0869 (3.61)	.0323 (0.43)
Skilled Trades	-.0325 (1.38)	-.0523 (1.87)	.0558 (1.22)
Caring, Leisure etc	-.0602 (2.58)	-.0900 (3.51)	.1128 (1.82)
Sales/Customer Service	-.1756 (6.94)	-.1856 (6.80)	-.2488 (2.72)
Process, Plant & Machine	-.1215 (4.56)	-.1281 (4.32)	-.1088 (1.76)
Elementary	-.0825 (3.44)	-.1031 (3.92)	-.0044 (0.06)
North West	-.0082 (0.32)	-.0009 (0.03)	-.0441 (0.56)
Merseyside	-.0563 (1.50)	-.0615 (1.55)	-.0110 (0.09)
Yorkshire & Humberside	-.0064 (0.24)	-.0116 (0.42)	.0401 (0.49)
East Midlands	.0228 (0.77)	.0178 (0.57)	.0664 (0.75)
West Midlands	.0139 (0.51)	.0086 (0.30)	.0593 (0.73)
Eastern	.0276 (0.99)	.0194 (0.65)	.0895 (1.10)
London	-.0012 (0.05)	-.0065 (0.23)	.0387 (0.51)
South East	.0172 (0.70)	.0144 (0.55)	.0523 (0.72)
South West	.0341 (1.29)	.0233 (0.82)	.1173 (1.53)
Wales	.0956 (3.82)	.0812 (3.05)	.2032 (2.73)
Scotland	.1179 (4.91)	.1034 (4.07)	.2280 (3.11)
Northern Ireland	.3895 (8.99)	.4157 (8.94)	.2471 (2.04)
Higher education	-.0040 (0.23)	-.0071 (0.38)	.0132 (0.27)
GCE, A-level	-.0241 (1.55)	-.0269 (1.59)	-.0090 (0.22)
GCSE grades A*-C	-.0326 (1.98)	-.0312 (1.76)	-.0381 (0.85)
Other qualifications	.0169 (0.78)	.0131 (0.55)	.0387 (0.68)
No qualification	-.0639 (2.55)	-.0558 (2.02)	-.0807 (1.36)
Usual hours	-.0018 (4.06)	-.0022 (3.99)	-.0009 (1.08)
Married	.3752 (28.35)	.3609 (25.45)	.4601 (12.41)
Separated	-.1672 (6.16)	-.1828 (6.28)	-.0566 (0.75)
Divorced	-.0026 (0.14)	-.0147 (0.72)	.0763 (1.48)
Widowed	-.1762 (4.73)	-.2137 (5.24)	.0004 (0.00)
Civil partnership	.5184 (6.04)	.5237 (5.70)	.4453 (2.04)
Never smoked cigarettes	.1778 (17.51)	.1845 (16.86)	.1318 (4.82)

(2)	All workers	Employees	Self-employed
Constant	77.424	77.589	80.270
Adjusted R ²	.0199	.0190	.0260
N	172,399	148,679	23,72

Source: ISSP 2012. Notes: Excluded category employees; 65T-statistics in parentheses

Table 32. Growth of SME business loans, 2007-12 - Outstanding SME business loans (stocks)
Year-on-year growth rate, as a percentage

Country	2008	2009	2010	2011	2012
Belgium	8.3	0	3	8.8	17.4
Canada	-0.1	3.7	-0.9	5	-2.5
Chile	11.3	6.9	8.8	20.4	14.7
Colombia	12.7	-5.2	11.3	17.5	14.5
France	4.8	0.3	5.3	5.3	1.8
Greece	n.a.	n.a.	n.a.	-7.1	-7.9
Hungary	10.3	-7.6	-11.1	0.3	1.9
Ireland	n.a.	n.a.	n.a.	0.9	-6
Israel	0.2	-5.1	7.3	7	0.3
Italy	2.1	1.2	6.6	-1.9	-1.5
Korea	14.4	5	-0.5	3.2	1.4
Mexico	16.9	-1	18.4	18.9	29.7
Norway	25.7	-7.7	4.2	4.7	n.a.
Portugal	9.2	0.9	-1.6	-3.9	-10
Russia	n.a.	3.7	21.9	19.1	16.9
Serbia	40.3	-0.8	5.6	3.1	-2.6
Slovak Republic	32.4	-0.5	0.1	-12	n.a.
Slovenia	15.5	-0.3	11.9	1.8	-4
Sweden	7.2	20.4	-21.4	n.a.	n.a.
Switzerland	5.9	5.3	1.3	3.2	2.8
Thailand	9.5	7.4	7.2	3.1	19.1
Turkey	10.6	-1.6	50.7	29.8	20.5
United Kingdom	11.1	-1.7	-1.7	-6.1	-3.5
United States	3.6	-2.3	-6.2	-6.8	-3.3

Source: Financing SMEs and Entrepreneurs 2014: An OECD Scoreboard OECD 2014

Table 33. Trends in payment delays 2007-12

	2007	2008	2009	2010	2011	2012
Austria	8.0	8.0	11.0	12.0	11.0	12.0
Belgium			17.0	17.0	15.0	19.0
Chile			1.8	1.7	1.3	1.4
Colombia	48.7	50.0	60.3	61.7	65.4	25.2
Denmark	7.2	6.1	12.0	12.0	13.0	12.0
Finland	6.0	5.0	7.0	7.0	7.0	7.0
France	14.3	16.0	18.0	18.0	18.0	17.0
Greece	4.6	4.3	6.7	8.7	14.1	23.4

	2007	2008	2009	2010	2011	2012
Hungary	16.3	19.0	19.0	15.0	22.0	20.0
Ireland	n.a.	n.a.	22.0	25.0	30.0	31.0
Italy	n.a.	19.4	22.1	19.0	16.9	17.9
Korea	11.0	12.1	9.9	12.1	11.7	9.1
Netherlands	13.2	13.9	16.0	17.0	18.0	17.0
Norway	7.4	7.3	11.0	8.0	9.0	9.0
Portugal	39.9	33.0	35.0	37.0	41.0	40.0
Slovak Republic	19.7	8.0	13.0	17.0	20.0	21.0
Slovenia	n.a.	n.a.	n.a.	n.a.	32.0	30.0
Spain	27.0	12.0	26.0	23.0	14.0	11.0
Sweden	6.9	7.0	8.0	8.0	8.0	7.0
Switzerland	13.7	12.0	13.0	13.0	11.0	10.0
United Kingdom			22.8	22.6	25.7	24.7

Source: Financing SMEs and Entrepreneurs 2014: An OECD Scoreboard OECD 2014

Table 34. Trends in bankruptcies 2007-12 Relative to 2007 (2007=1) and percentages

		2007	2008	2009	2010	2011	2012
Austria	all firms	1.00	1.00	1.10	1.01	0.93	0.96
Belgium	all firms	1.00	1.10	1.23	1.29	1.36	1.43
Canada	per 1 000 firms	1.00	1.00	0.94	0.71	0.65	0.58
Chile	all firms	1.00	1.05	1.21	0.94	0.93	0.91
Colombia ¹	all firms		1.00	1.57	1.67	1.87	1.22
Czech Republic	all firms	1.00	1.04	1.53	1.55	1.51	1.60
Denmark	all firms	1.00	1.54	2.38	2.69	2.28	2.27
Finland	% of firms	1.00	1.11	1.33	1.11	1.22	1.22
France	all firms	1.00	1.08	1.22	1.18	1.16	1.19
Greece	all firms	1.00	0.70	0.69	0.69	0.87	0.81
Hungary	per 10 000 firms	1.00	1.10	1.39	1.52	1.83	1.97
Ireland	all firms	1.00	1.25	1.89	1.90	2.13	2.05
Italy	all firms	1.00	1.22	1.53	1.83	1.97	2.03
Korea	all firms	1.00	1.19	0.87	0.68	0.59	0.54
Netherlands ²	all firms			1.00	0.89	0.88	1.05
New Zealand	all firms		1.00	1.45	1.37	1.21	1.12
Norway	only SMEs	1.00	1.50	2.16	1.89	1.81	1.60
Portugal	all firms	1.00	1.35	1.46	1.57	1.82	2.56
Russia ¹	all firms	1.00	1.00	1.11	1.15	0.92	1.01
Serbia	all firms	1.00	1.05	1.21	1.39	1.54	n.a.
Slovak Republic	all firms	1.00	1.49	1.63	2.04	2.22	2.13
Spain	only SMEs	1.00	2.83	4.92	4.70	5.37	7.00
Sweden	only SMEs	1.00	1.09	1.32	1.26	1.20	1.29
Switzerland	all firms	1.00	0.98	1.21	1.45	1.54	1.59
Turkey	all firms	1.00	0.90	0.96	1.31	1.38	2.71
United Kingdom	all firms	1.00	1.23	1.51	1.32	1.40	1.34
United States	all firms	1.00	1.54	2.15	1.99	1.69	

Source: Financing SMEs and Entrepreneurs 2014: An OECD Scoreboard OECD 2014

Table 35. Distribution of self-employment and employee earnings, UK 2004/5

	Employees			Self-employed		
	Amounts (£ m)	Numbers (000's)	Cumulative (%)	Numbers (000's)	Numbers (000's)	Cumulative (%)
£0					510	11.2
£1	22	84	0.4	39	161	14.8
£500	67	91	0.8	112	153	18.1
£1,000	212	141	1.5	387	263	23.9
£2,000	400	160	2.2	601	242	29.2
£3,000	41	182	3.1	879	251	34.7
£4,000	2838	609	5.9	1448	323	41.9
£5,000	13688	2196	16.3	3003	484	52.5
£7,500	18142	2074	26.0	3133	360	60.4
£10,000	51838	4153	45.5	6749	548	72.4
£15,000	62191	3578	62.3	6432	372	80.6
£20,000	109247	4473	83.3	10023	414	89.7
£30,000	95336	2582	95.4	9624	257	95.4
£50,000	51840	788	99.1	9675	140	98.5
£100,000	39643	195	100.0	15647	70	100
Total	£446,000	21,300		£67,752	4,547	

Source: Blanchflower and Shadforth (2008)

Table 36. Distribution of UK annual self-employment earnings ('000s)

	#	£ 0	£ 1 - 499	£ 500 - 999	£ 1,000 - 4,999	£ 5,000 - 9,999	£ 10,000 - 19,999	£ 20,000 - 49,999	£ 50,000 - 99,999	£ 100,000 +
1999-00	4170	401	144	133	919	865	911	613	133	49
2000-01	4140	423	131	126	926	809	905	631	139	55
2001-02	4380	474	158	140	1035	793	919	652	144	61
2002-03	4490	494	164	147	1046	817	938	672	145	65
2003-04	4550	510	161	153	1079	844	920	671	140	70
2004-05	4640	551	171	153	1104	852	926	665	131	83
2005-06	4710	539	163	139	999	927	983	721	140	102
2006-07	4840	564	168	145	990	983	986	748	145	109
2007-08	4890	594	178	145	972	1000	974	764	149	112
2008-09	4885	627	185	148	990	1061	937	694	137	107
2009-10	4880	660	191	151	1007	1121	900	623	125	101
2010-10	5110	723	215	161	1062	1183	918	625	126	96
2011-12	5490	777	232	178	1145	1273	997	662	129	95
2012-13	5500	768	231	185	1120	1290	1029	663	126	94
Average	4763	579	178	150	1028	987	946	672	136	86
Growth over period	13%	36%	21%	11%	10%	8%	3%	10%	4%	73%
Overall %		12.2%	3.7%	3.2%	21.6%	20.7%	19.9%	14.1%	2.9%	1.8%
2012-13 %		14.0%	4.2%	3.4%	20.4%	23.5%	18.7%	12.1%	2.3%	1.7%

Source: Murphy (2013) and HMRC <https://www.gov.uk/government/statistics/income-of-individuals-with-self-employment-sources-2010-to-2011> https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/276315/table3-10-12.pdf

Table 37. Median income per week of the self-employed¹ 2002/03-2012/13

	Median Income Pounds Self-employed Adjusted for inflation ²	Median Income Pounds Self-employed Not adjusted for inflation
2002/03	290	223
2003/04	296	230
2004/05	290	230
2005/06	256	207
2006/07	301	250
2007/08	269	230
2008/09	266	233
2009/10	238	216
2010/11	221	210
2011/12	236	230
2012/13	207	207

¹ Self-employed and employees are aged 16 and over

² Income figures are in 2013 prices

Source: 'Self-employed workers in the UK, 2014', ONS, 20th August 2014. DWP, Family Resource Survey
http://www.ons.gov.uk/ons/dcp171776_374941.pdf

Table 38. Mean Self-employment incomes

	2005	2006	2007	2008	2009	2010	2011	2012
Austria	22164	20209	20335	20291	21596	22035	23236	23719
Belgium	30277	24619	22148	34009	28406	26512	28667	
Bulgaria			1822	3748	4603	4422	3272	3015
Switzerland				35777	33061	35331	35384	41275
Cyprus	17853	16223	16297	17644	17047	15903	15215	13391
Czech Republic	7298	7582	8178	8848	10229	9111	9280	9214
Germany	27026	29907	32043	36166	32175	29946	29809	27325
Denmark	12068	12266	14234	13458	8795	8643	9368	7789
Estonia	1195	1063	2189	1387	1472	1235	1401	1639
Greece			16172	16623	17266	17808	16019	13770
Spain		14758	14984	14354	15764	16690	17818	19640
Finland	16198	17484	19096	20413	20160	19157	19744	20940
France	30256	32969	32736	31443	29714	26799	28207	27175
Croatia							4412	4333
Hungary	4457	7092	3177	3626	4033	3580	3971	3940
Ireland	34505	37985	34390	34026	31733	31418	27254	
Israel	11090	13072	12803	14166	8046	6860	6901	7075
Italy			24439	27295	28855	27779	27692	26704
Lithuania	2289	2383	2863	3926	3918	4192	4201	4050
Luxembourg	34838	42511	37715	48463	51920	48309	46769	49930
Latvia			3962	4421	4165	3183	3681	3815
Malta				20284	14839	14382	14114	14550
Netherlands	18990	19602	21345	23191	24366	23102	24215	24108
Norway	24505	33858	31632	34626	36810	33898	35083	39301
Poland	3262	3873	4042	4634	5741	5139	5837	5987
Portugal			11239	11565	13106	10974	10267	11196

	2005	2006	2007	2008	2009	2010	2011	2012
Romania			1105	1499	1437	1253	1214	1136
Sweden	7209	8219	7821	8941	8630	7275	8605	10280
Slovenia	3091	3741	3978	4892	5444	4955	4907	4577
Slovakia	4180	4896	5988	7049	8342	7272	8119	7952
UK	39984	29823	32295	31851	26795	29183	25986	28466

Source: Bell and Blanchflower, 2015

Table 39. Self-employment incomes as a % employee wages

	a) Means					b) Medians				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Austria	74	78	77	80	81	54	55	54	57	56
Belgium	117	93	84	88		87	82	78	71	
Bulgaria	139	125	134	101	92	84	100	101	88	62
Cyprus	91	82	76	71	60	84	77	71	58	54
Czech Republic	112	110	102	96	90	84	85	83	80	79
Denmark	36	23	22	23	19					
Estonia	19	19	16	18	19					
Finland	85	78	73	74	76	56	50	46	48	48
France	138	125	114	117	110	89	76	70	69	70
Germany	129	115	105	103	93	67	56	56	58	50
Greece	88	89	92	88	82	61	63	62	62	57
Hungary	60	62	62	66	65	41	42	36	43	42
Ireland	107	92	93	80		80	71	59	54	
Israel	36	31	33	31	30	20	18	18	17	17
Italy	128	132	127	122	116	93	100	95	86	83
Latvia	68	56	51	61	59	51	38	38	45	41
Lithuania	63	56	76	73	70	44	36	54	54	58
Luxembourg	114	115	109	103	108	85	88	79	79	77
Malta	131	99	97	88	93	120	86	89	84	81
Netherlands	73	74	70	72	71	31	30	28	32	32
Norway	92	94	87	80	85	60	58	48	45	45
Poland	67	71	74	75	75	39	51	54	52	58
Portugal	88	101	81	75	83	66	78	71	63	64
Romania	39	35	34	32	29	19	19	18	18	19
Slovakia	126	123	102	110	99	14	19	17	17	14
Slovenia	38	39	35	33	30	100	101	86	100	92
Spain	80	86	90	94	106	77	78	65	65	71
Sweden	36	34	31	32	34	11	8	6	7	8
Switzerland	94	80	82	73	75	71	59	56	55	53
UK	103	101	103	89	87	68	64	61	57	61

Source: Bell and Blanchflower, 2015

Table 40. Mean earnings for unincorporated self-employed and wage and salary workers

	Unincorporated self-employed workers				Wage and salary workers			
	Women		Men		Women		Men	
	1993	2012	1993	2012	1993	2012	1993	2012
Full time								
Annual	24,767	32,806	46,319	49,521	36,253	44,943	50,317	59,699
Weekly	499	695	922	984	733	895	1,006	1,185
Hourly	10.95	16.77	19.31	21.96	17.86	21.62	22.93	26.9
Part-time								
Annual	11,456	17,322	24,617	29,31	15,396	19,292	23,095	27,173
Weekly	255	418	540	649	371	442	568	645
Hourly	12.88	19.52	18.84	22.78	14.53	16.87	16.35	19.62
Percentage changes 1993-2012								
	Women		Men		Women		Men	
	1993	2012	1993	2012	1993	2012	1993	2012
Full time								
Annual		32		7		24		19
Weekly		39		7		22		18
Hourly		53		14		21		17
Part-time								
Annual		51		19		25		18
Weekly		64		20		19		14
Hourly		52		21		16		20

Source: Roche (2014)

Table 41. Annual earnings US self-employed and wage and salary workers

1) Unincorporated self-employed			
	Observations	Non-imputed	Annual earnings
2005	100,029	80,861	\$ 37,167
2006	102,934	82,959	\$ 38,247
2007	95,739	77,248	\$ 39,209
2008	90,774	72,857	\$ 38,859
2009	88,527	71,734	\$ 36,459
2010	91,863	71,857	\$ 35,580
2011	91,183	71,027	\$ 35,924
2012	90,892	71,268	\$ 37,014
2013	88,923	68,662	\$ 38,118
Total	840,864	668,473	

2) Incorporated self-employed			
	Observations	Non-imputed	Annual earnings
2005	53,557	43,495	\$ 74,095
2006	55,078	44,650	\$ 76,396
2007	53,694	43,510	\$ 79,724
2008	52,152	41,920	\$ 79,196
2009	50,044	40,284	\$ 75,508
2010	52,799	40,830	\$ 72,153
2011	50,347	38,941	\$ 73,779
2012	52,121	40,574	\$ 75,834
2013	51,998	39,982	\$ 79,817
Total	471,790	374,186	
3) Wage and salary workers			
	Observations	Non-imputed	Annual earnings
2005	1,182,268	1,014,201	\$ 38,930
2006	1,232,254	1,049,974	\$ 39,956
2007	1,168,811	997,956	\$ 41,689
2008	1,202,423	1,016,052	\$ 43,128
2009	1,159,570	992,871	\$ 43,617
2010	1,228,958	1,013,095	\$ 44,138
2011	1,217,006	996,126	\$ 44,784
2012	1,233,347	1,012,521	\$ 45,897
2013	1,279,856	1,025,006	\$ 47,232
Total	10,904,493	9,117,802	

Source: American Community Surveys, 2008-2013 (weighted with person weights)

Table 42. Wage curves for wage and salaries and self-employment incomes, USA 2005-2013

	Wages & salaries		Self-employment Income
	All	Incorporated Self-employed	Self-employed
Log Unemployment rate	-.1060 (13.68)	-.1970 (10.64)	-.2949 (12.55)
Age	.1688 (264.07)	.0973 (60.02)	.1220 (113.14)
Age2	-.0017 (252.44)	-.0010 (59.87)	-.0012 (102.68)
Male	.4530 (134.14)	.5675 (95.58)	.5915 (93.05)
African American	-.1540 (32.99)	-.3080 (26.57)	-.3154 (27.00)
American Indian/Alaskan Native	-.1493 (21.95)	-.3038 (9.20)	-.3390 (11.82)
Asian/Native Hawaiian	-.1060 (34.53)	-.1803 (17.10)	.1179 (7.16)
Other races	-.1061 (25.72)	-.2319 (16.14)	-.1403 (13.50)
White Hispanic	-.1003 (19.79)	-.2046 (16.08)	-.0540 (4.27)
Constant	57.109	76.367	62.272
R ²	.3755	.2149	.0916
N	9,555,459	374,186	981,845

Notes: all equations include 50 state dummies and 8 year dummies and 15 schooling dummies. All standard errors are clustered by state and year. Excludes imputed wage and self-employed income observations. Unemployment and wage rates refer to previous year.

Source: American Community Surveys, 2005-2013.

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part II

yearly report on flexible labor and employment



table of contents part II

dawn of
super-aged
societies

1

p.132

participation

2

p.140

unemployment

3

p.150

skills mismatch /
talent gap

4

p.162

flexible labor
relations

5

p.170

fixed-term
contracts

6

p.176

agency work

7

p.186

self-employment

8

p.202

part-time
employment

9

p.208



1. dawn of the super-aged society

Demographic transition, frequently considered a long-term problem, is now upon us and will significantly lower economic growth. The number of “super-aged” countries – where more than one in five of the population is 65 or older – will reach 27 in 2030. Only Germany, Italy and Japan meet that definition today.

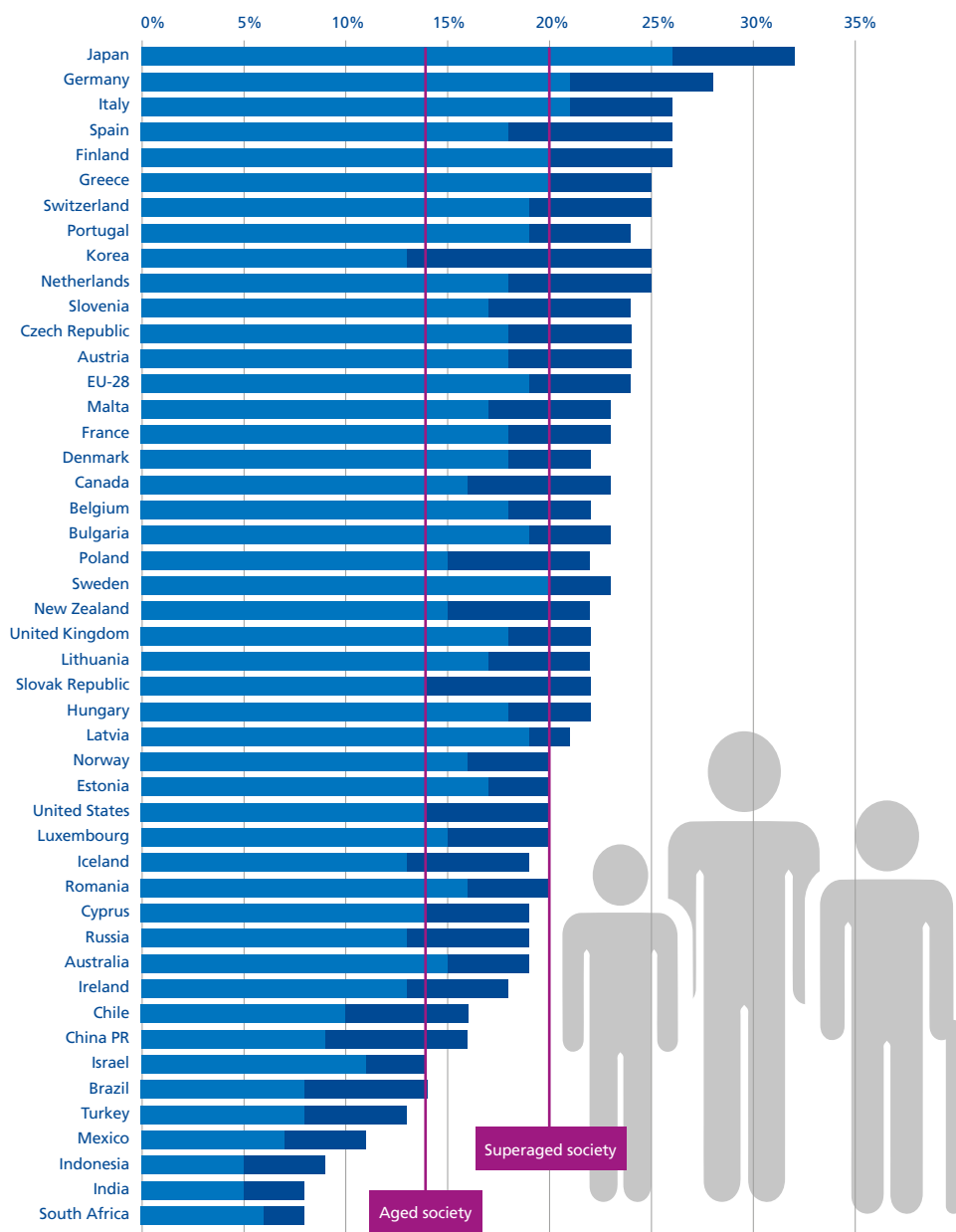
The global population is on the brink of a remarkable transformation. Thanks to the aging of today’s middle-aged demographic swell and ongoing improvements in life expectancy, the population of seniors is projected to surge, increasing from 530.5 million in 2010 to 1.5 billion in 2050. The result will be a much older world, a future in which roughly one-in-six people is expected to be 65 and older by 2050, double the proportion today¹.

Aging is not just a developed-world problem as it is generally believed. Many emerging markets are already classified as aging. The global working-age population will only grow half as fast between 2015 and 2030 as during the previous 15 years. All countries except a handful in Africa will see their working-age populations either decline or grow more slowly over that period.

Nations expected to experience relatively rapid population growth are located mostly in Africa. Africa is expected to become home to a quarter of the world’s population in 2050, up from 15% in 2010. Most notably, Nigeria’s population is projected to nearly triple and to overtake the U.S. population by 2050. The UN estimates that Africa’s population should more than double with the addition of 1.4 billion people, greater than the increase of 1 billion expected in Asia & Oceania and the gain of just 0.3 billion expected for the Americas. In sharp contrast, Europe’s population is expected to shrink by more than 30 million by the middle of the century.

¹ UN Population prospects, the 2012 revision

Figure 1.1 Super-aged societies: Share of 65+ population in total population



Source: UN population prospects, the 2012 revision

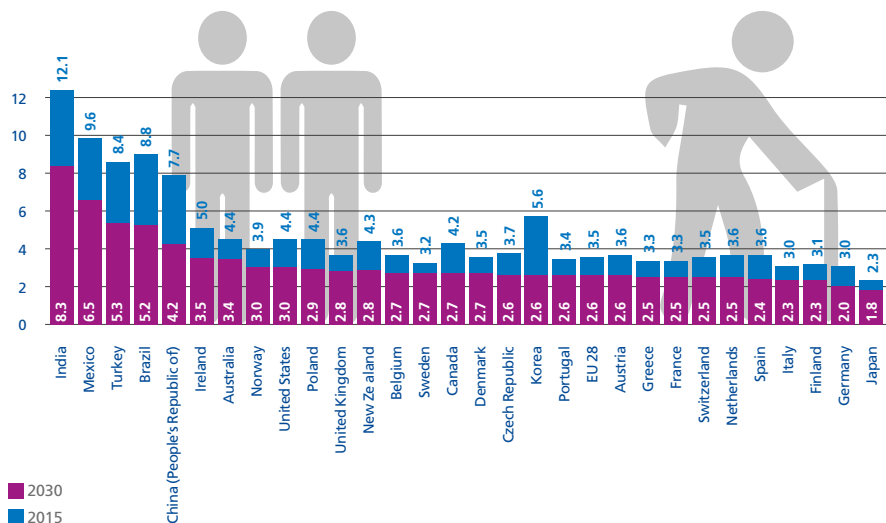


Old age dependency increasing worldwide

In the coming decades, aging and slower rates of growth are expected to characterize the populations of all major regions in the world. Ranked by median age, Europe is currently the oldest region in the world and should retain that distinction in 2050. However, Latin America and Asia are projected to age the most rapidly through 2050. It is expected that the median age in Latin America, currently 10 years lower than the median age in North America, will match North America's age level by 2050. Africa will continue to have the youngest population in the world.

Countries such as Russia, Thailand, Chile and China have a rapidly maturing population demographics. Even relatively young countries such as Brazil and Turkey are aging. Moreover, the pace of aging in some of these countries is more rapid than in developed economies. Some societies in Asia are forecast to age particularly fast. China will have six working-age adults per elderly person in 2020, 4.2 in 2030 and 2.6 by 2050. Hong Kong and Korea will have 3.8 and 4.6 working-age adults per elderly person in 2020, but 2.3 and 2.6, respectively, by 2030, and just 1.5 each by 2050.

Figure 1.2 Working-age adults per elderly person



Source: OECD.stats

The population of children, meanwhile, will be at a virtual standstill due to long-term declines in birth rates around the world. The number of children younger than 15 is expected to increase by only 10%, from 1.8 billion in 2010 to 2 billion in 2050. Consequently, the global share of the population that is 65 and older will double, from 8% in 2010 to 16% in 2050. And, more countries will find that they have more adults ages 65 and older than they have children younger than 15.

Ageing will slow economic growth

Most of the countries set to join the “super-aged” club by 2020 are in Europe and include the Netherlands, France, Sweden, Portugal, Slovenia and Croatia. But by 2030 they will be joined by a more diverse group including Hong Kong, Korea, the US, the UK and New Zealand.

The unprecedented pace of population aging will slow annual global economic growth by 0.4 per cent over the next five years and by 0.9 per cent between 2020 and 2025². The OECD, a Paris-based organization of countries that promotes sustainable growth, warned about the issue in January when it predicted population aging would contribute to slow global annual economic growth from an average 3.6 per cent in this decade to about 2.4 per cent between 2050 and 2060³.

Shift of economic power

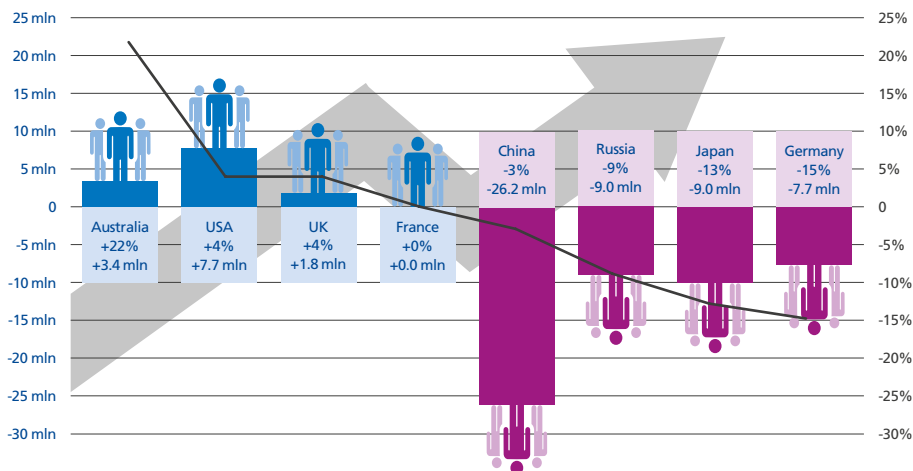
The graying of the world's population in the aggregate conceals some important variations. Japan, China, South Korea and many countries in Europe are expected to have greater numbers of people dependent on shrinking workforces, a potentially significant demographic challenge for economic growth. For the United States and Australia population trends may lead to greater opportunities in the global economy of the future. Although the U.S. population is anticipated to turn older and grow at a slower rate in the future, it is projected to increase at a faster pace and age less than the populations of most of the rest of the developed world. Thus, to the extent that demography is destiny, the U.S. may be in a position to experience a more robust economic future in comparison to other developed nations.

² Moody's: Aging will reduce economic growth worldwide in the next two decades, august 2014

³ OECD: Economic outlook 2014



Figure 1.3 Growth of working-age population 2014-2030



Source: OECD.stats

However, aging elsewhere, such as India and several African countries, mostly means the aging of children into the workforce. That is a potentially favorable demographic trend for economic growth. Thus, the coming changes in world demography could conceivably alter the distribution of global economic power over the coming decades. A handful of countries, even as their populations age, are poised to experience a potential demographic boost to their economies. The total dependency ratios in Egypt, India, Pakistan, Nigeria, Kenya and South Africa should decrease in the future, a consequence of their currently large youth populations aging into the workforce. This demographic transition is potentially a boon for economic growth. However, because these countries will also experience rising proportions of seniors in their populations, they will not be entirely immune to the social and economic challenges posed by an aging citizenry.

⁴ 2013 Pew Research Center: ageing attitude survey

Public concern on ageing

These developments will be challenging for public budgets and pension systems. Indeed, the falling share of the population at traditionally productive ages means relatively fewer people will pay taxes and social contributions at a time when the rising share of older persons implies that more people will receive pensions and costly health services.

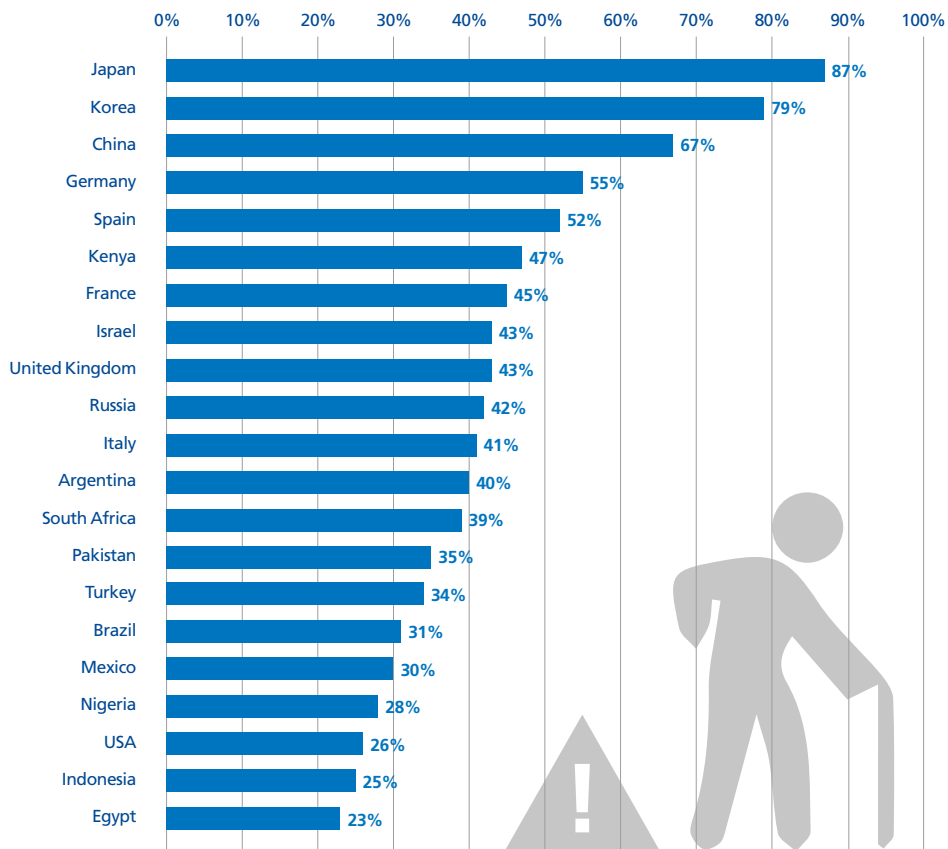
In a number of developing countries, poverty is high among older persons, sometimes higher than that of the population as a whole, especially in countries with limited coverage of social security systems. In response, many countries have implemented reforms, such as a rise in the retirement age, designed to delay the rate of increase. Nonetheless, public pension expenditures are expected to consume about 15% of GDP in several European countries by 2050. Pension expenditures in the U.S. are projected to increase by less, from 6.8% of GDP in 2010 to 8.5% in 2050.

Larger concerns revolve around public health care expenditures, which are rising faster than pension expenditures in most countries. The reason is that health care expenditures are pushed up not just by aging but by cost inflation as well. In the U.S., public health expenditures are projected to more than double, from 6.7% of GDP in 2010 to 14.9% in 2050. Similarly, large increases are expected in Japan and several countries in Europe, if current rates of cost inflation persist.

Concern peaks in East Asia, where nearly nine-in-ten Japanese, eight-in-ten South Koreans and seven-in-ten Chinese describe aging as a major problem for their country. Europeans also display a relatively high level of concern with aging, with more than half of the public in Germany and Spain saying that it is a major problem. Americans are among the least concerned, with only one-in-four expressing this opinion⁴.



Figure 1.4 Is ageing a problem in your country?



Source: 2013, Pew research center: ageing attitude survey

On the upside, older people can increasingly live independently (alone or with their spouse only), and in most countries, they support themselves financially. In most countries with pertinent data, older persons make net financial contributions to younger family members until rather advanced ages. The older population is predominantly female. Because women tend to live longer than men, older women outnumber older men almost everywhere.

What can be done?

There are ways countries can offset the economic effects of ageing. Policy reforms in the medium term which improve labor participation rates, streamline migration, and improve financial flows can partially mitigate the impact of ageing on economic growth. In the long term, innovation and technological progress that improve productivity have the potential to lessen the effects of the rapid demographic changes.

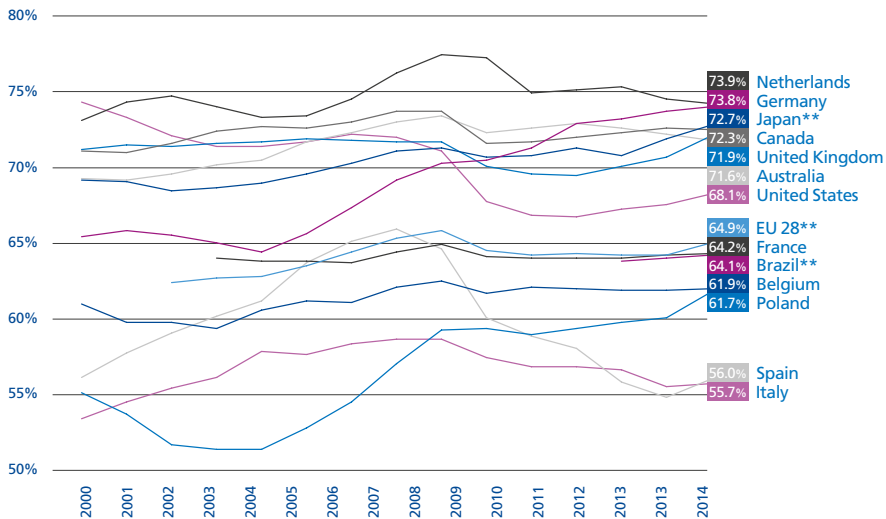


2. participation

Growing labor participation of women and the elderly

Participation is measured by the employment rate: the number of all people in employment (employees, self-employed, family workers) divided by the total number of people in the working age. Alternatively, one could describe the employment rate as 'the number of people employed as a percentage of the potential labor force'. It is also referred to as the 'employment-population ratio'.

Figure 2.1 Employment rate (age 15-64, in %)



Source: ILOSTAT, * data 2014 = 2014q2, ** Source: stats.oecd

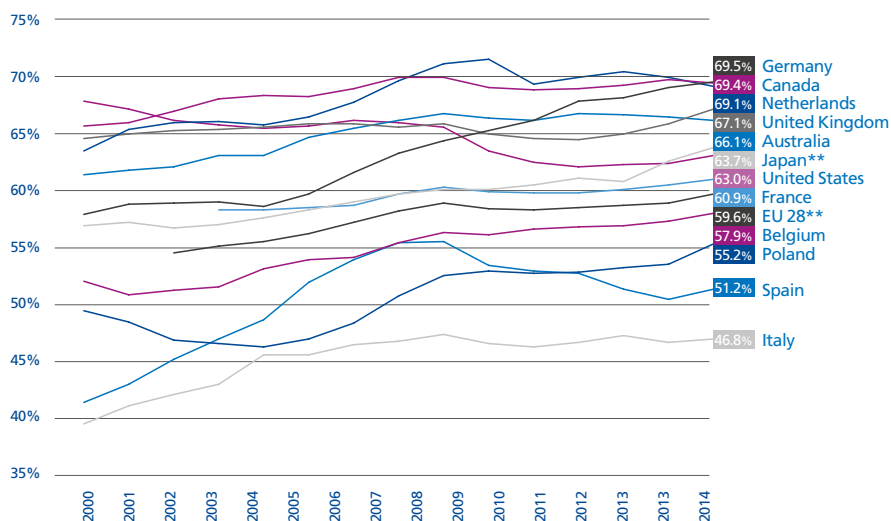
The share of the population over the age of 15 that is active in the labor market varies tremendously: from close to 50% in Italy to more than 75% in some Nordic countries. There is a strong presumption that the countries with a high labor force participation have the best policy framework. The time has come to implement a new set of policies conducive to stronger growth, higher employment and sounder pension systems.

These policies will have to be tailored to meet the specific needs of the various groups that make up the active population. One group in the labor market that is practically fully employed is that of prime-age males (25-54 years old), whose labor-force participation rate generally exceeds 90%. By contrast, there is wide variation in the extent to which women, as well as young and older persons, participate in the labor market. Those groups are most likely to be influenced by government policies, for better or worse.

Women

As for women, their participation is on the rise in all countries for several decades. Each new generation of women has had a stronger attachment to the labor market than the previous one. There probably are important cultural reasons for this, but the increase has also been enabled by technical progress, allowing housework to be done more easily, while higher educational attainment has also played a role in luring women onto the job market.

Figure 2.2 Employment rate females (age 15-64, in %)



Source: ILOSTAT, * data 2014 = 2014q2, ** Source: stats.oecd

Policies have also affected this trend and appear to play an important role in explaining cross-country differences in female participation. Taxation is one such policy. Married women are widely considered as the second earner in a couple and when their income is taxed together with that of their spouse, the marginal tax rate can be very high. This is unfortunate since women's participation reacts strongly to tax changes than that of men. Most countries have moved towards taxing each earner in a couple separately, but joint taxation still exists in a number of countries, including France and Germany.

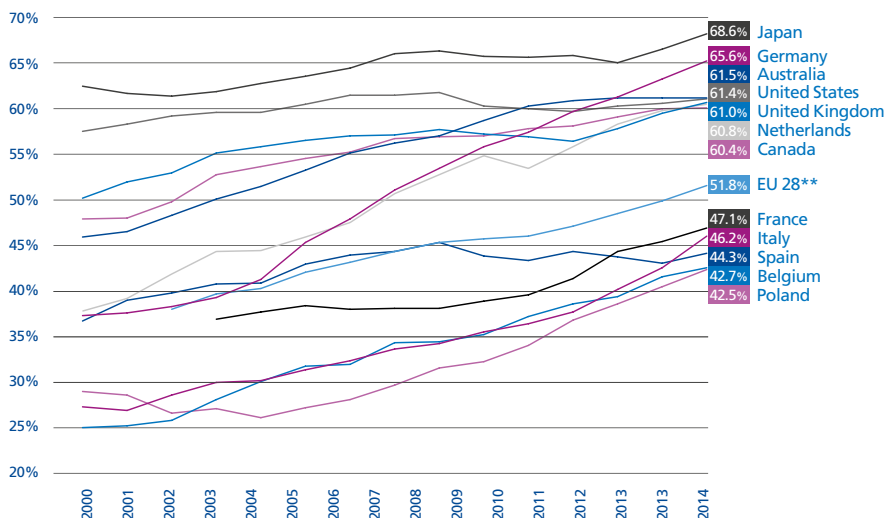


Better participation can also be achieved by subsidizing childcare, either directly or through the tax system. Most Nordic countries have gone quite far in this respect and have high female labor force participation. Childcare support may be seen as more of a subsidy to female full-time work than to part-time work, and indeed, the share of part-time work in Nordic countries has declined. But the funds used for childcare subsidies obviously has to come from taxes, and in general higher taxes reduce people's desire to work, so there are limits to this policy. Other countries however, such as the United States, manage to achieve high female participation without large-scale subsidization of childcare. In this case, because of a wide dispersion of wages, many households can afford to meet the costs of childcare by themselves.

The elderly

In contrast to women, older men have reduced their labor force participation in all countries over the past three decades, quite dramatically in some cases. It may seem ironic that effective retirement ages have dropped at the same time as people are living longer and healthier lives. This drop may reflect a stronger appetite for leisure as real incomes have gone up. But it also owes a lot to policies.

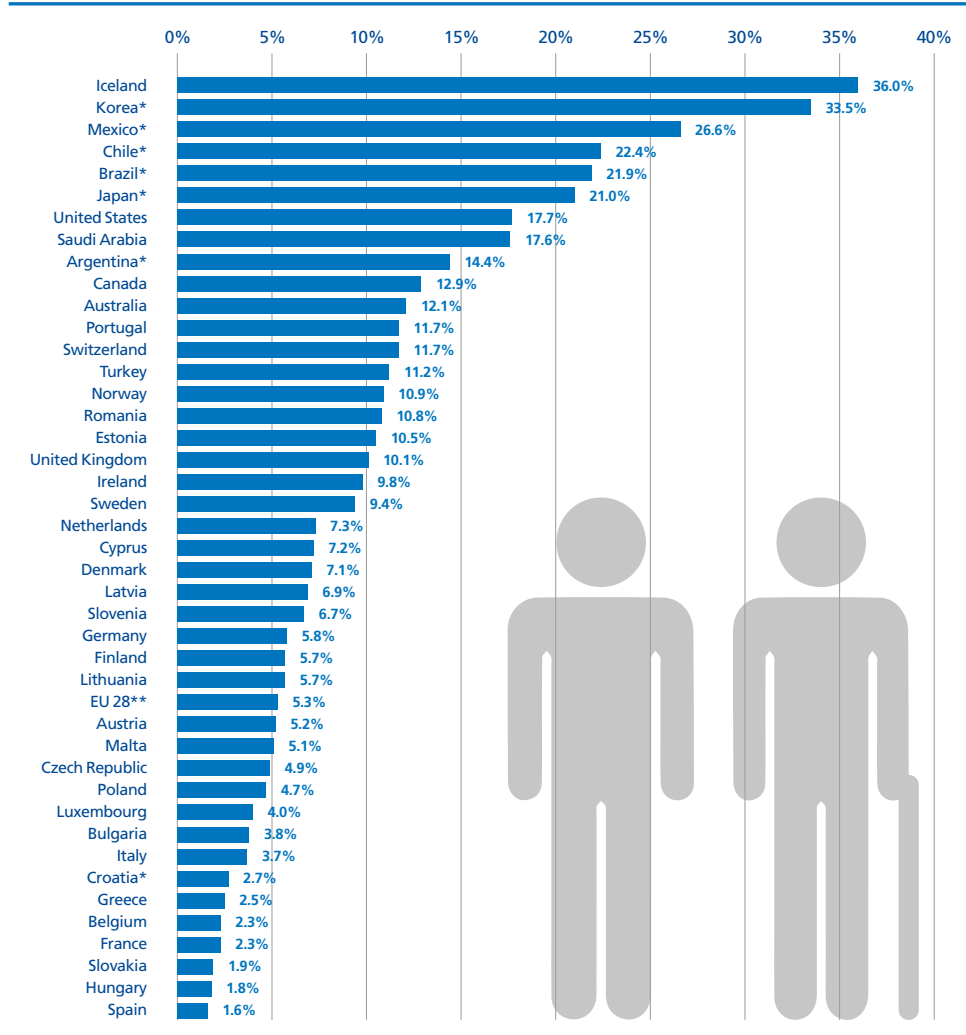
Figure 2.3 Employment rate elderly (age 55-64, in %)



Source: ILOSTAT, * data 2014 = 2014q2, ** Source: stats.oecd

Early retirement, invalidity and unemployment benefit schemes in many countries provide people in their 50s with strong incentives to retire. These often misguided policies led to a sharp drop in participation in the 1970s and 1980s. There has been a moderate roll-back since then, but most of these policies remain in place in many continental European countries, with detrimental consequences for employment.

Figure 2.4 Employment rate 65+ population (in %)



Source: ILOSTAT, * data 2014 = 2014q2, ** Source: Eurostat



Old-age pension schemes also stack the cards in favour of people retiring early. If people postpone their retirement by a year, this is rarely reflected in correspondingly higher pensions later on, despite their extra contributions. This is already problematic at ages between 60 and 65, but after 65 years old the disincentives to work become almost prohibitive in some countries. In our society where people are fitter for a lot longer, we should be free to engage in “active ageing”.

Increasing labor participation

To cope with mounting financial pressures due to the ageing of society, governments have to make difficult choices. In particular, to avoid increasing the tax burden or impoverishing pensioners, they are now looking at ways of enticing more people to enter or stay in work.



A policy package that could work would include the following steps:

- eliminate early retirement schemes and raise standard retirement ages;
- increase childcare subsidies;
- eliminate tax discrimination against female participation;
- enhance the role of part-time work;
- make the school-to-work transition more effective.



In the short term, measures could well be needed to ensure the full employment of more people coming onto the job market. It is reassuring to know that the countries which have promoted active labor force participation also benefit from high employment rates. Given time, employers have been able to create the jobs needed to match a more abundant supply of labor.

Table 2.1 Employment rate (age 15-64, in %)

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Argentina*	59.9	60.7			62.4	62.2	62.4	63.2	63.1	62.7	61.4
Australia	70.3	71.5	72.1	72.8	73.2	72.1	72.4	72.7	72.4	72.0	71.6
Austria	65.3	67.4	68.6	69.9	70.8	70.3	70.8	71.1	71.4	71.4	71.1
Belgium	60.5	61.1	61.0	62.0	62.4	61.6	62.0	61.9	61.8	61.8	61.9
Brazil*									63.7	63.9	64.1
Bulgaria	55.1	55.8	58.6	61.7	64.0	62.6	59.7	58.4	58.8	59.5	61.0
Canada	72.5	72.4	72.8	73.5	73.5	71.4	71.5	71.8	72.1	72.4	72.3
Chile*								61.3	61.8	62.2	62.0
Croatia	54.9	55.0	55.6	59.0	60.0	59.4	57.4	55.2	53.5	52.5	54.6
Cyprus	69.4	68.5	69.6	71.0	70.9	69.0	68.9	67.6	64.6	61.7	62.1
Czech Republic	64.1	64.8	65.3	66.1	66.6	65.4	65.0	65.7	66.5	67.7	69.0
Denmark	76.0	75.9	77.4	77.0	77.9	75.3	73.3	73.1	72.6	72.5	72.8
Estonia	63.2	64.8	68.4	69.8	70.1	63.8	61.2	65.3	67.1	68.5	69.6
EU 28**	62.7	63.4	64.3	65.2	65.7	64.4	64.1	64.2	64.1	64.1	64.9
Finland	68.3	68.4	69.3	70.3	71.1	68.7	68.1	69.0	69.4	68.9	68.7
France	63.7	63.7	63.6	64.3	64.8	64.0	63.9	63.9	63.9	64.1	64.2
Germany	64.3	65.5	67.2	69.0	70.1	70.3	71.1	72.7	73.0	73.5	73.8
Greece	59.3	59.6	60.6	60.9	61.4	60.8	59.1	55.1	50.8	48.8	49.4
Hungary	56.6	56.9	57.4	57.0	56.4	55.0	54.9	55.4	56.7	58.1	61.8
Iceland	83.2	83.8	84.6	85.1	83.6	78.3	78.2	78.5	79.7	81.1	81.6
Israel**	55.7	56.7	57.6	58.9	59.8	59.2	60.2	60.9	66.5	67.1	67.9
Ireland	65.5	67.6	68.7	69.2	67.4	61.9	59.6	58.9	58.8	60.5	61.7
Italy	57.8	57.6	58.3	58.6	58.6	57.4	56.8	56.8	56.6	55.5	55.7
Japan**	68.8	69.4	70.1	70.9	71.1	70.5	70.6	71.1	70.6	71.7	72.7
Korea**	63.6	63.7	63.8	63.9	63.8	62.9	63.3	63.8	64.2	64.4	65.3
Latvia	60.5	62.1	65.9	68.1	68.2	60.3	58.5	60.8	63.0	65.0	66.3
Lithuania	61.8	62.9	63.6	65.0	64.4	59.9	57.6	60.2	62.0	63.7	65.7
Luxembourg	62.5	63.6	63.6	64.2	63.4	65.2	65.2	64.6	65.8	65.7	66.6
Malta	53.4	53.6	53.9	55.0	55.5	55.3	56.2	57.9	59.1	60.8	61.9
Mexico**		60.0	61.0	61.0	60.7	59.8	59.7	60.0	60.9	60.8	60.4
Netherlands	73.1	73.2	74.3	76.0	77.2	77.0	74.7	74.9	75.1	74.3	73.9
New Zealand**	73.2	74.3	74.9	75.2	74.7	72.9	72.3	72.6	72.2	73.1	74.6
Norway	75.3	74.8	75.4	76.8	78.0	76.4	75.3	75.3	75.7	75.4	75.2
Poland	51.4	52.8	54.5	57.0	59.2	59.3	58.9	59.3	59.7	60.0	61.7
Portugal	67.8	67.3	67.6	67.6	68.0	66.1	65.3	63.8	61.4	60.6	62.6
Romania	58.7	57.6	58.8	58.8	59.0	58.6	60.2	59.3	60.2	60.1	61.0
Saudi Arabia						48.7		51.5	51.2	52.5	52.2
Slovakia	56.7	57.7	59.4	60.7	62.3	60.2	58.8	59.3	59.7	59.9	61.0
Slovenia	65.6	66.0	66.6	67.8	68.6	67.5	66.2	64.4	64.1	63.3	63.9
Spain	61.1	63.6	65.0	65.8	64.5	60.0	58.8	58.0	55.8	54.8	56.0
Sweden	72.4	72.5	73.1	74.2	74.3	72.2	72.1	73.6	73.8	74.4	74.9
Switzerland	77.4	77.2	77.9	78.6	79.5	79.0	78.6	79.3	79.4	79.6	79.8
Turkey			44.6	44.6	44.9	44.3	46.3	48.4	48.9	49.5	49.5
United Kingdom	71.5	71.7	71.6	71.5	71.5	69.9	69.4	69.3	69.9	70.5	71.9
United States	71.2	71.5	72.0	71.8	70.9	67.6	66.7	66.6	67.1	67.4	68.1

Source: ILOSTAT, * data 2014 = 2014q2, ** Source: stats.oecd



Table 2.2 Employment rate females (age 15-64, in %)

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Argentina*	48.6	48.9			50.3	50.8	50.3	51.0	51.1	50.8	49.6
Australia	63.0	64.6	65.4	66.1	66.7	66.3	66.1	66.7	66.6	66.4	66.1
Austria	59.2	61.1	62.2	63.5	64.8	65.2	65.7	66.1	66.7	66.9	66.9
Belgium	53.0	53.8	54.0	55.3	56.2	56.0	56.5	56.7	56.8	57.2	57.9
Bulgaria	51.6	51.7	54.6	57.6	59.5	58.3	56.4	55.6	56.3	56.8	58.2
Canada	68.3	68.2	68.9	69.9	69.9	69.0	68.8	68.9	69.2	69.7	69.4
Chile*								49.1	50.2	50.7	51.7
Croatia	47.8	48.6	49.4	51.6	52.7	53.7	52.1	49.5	48.5	48.5	50.0
Cyprus	59.7	58.4	60.3	62.4	62.9	62.3	63.0	62.1	59.4	56.9	58.6
Czech Republic	56.1	56.3	56.8	57.3	57.6	56.7	56.3	57.2	58.2	59.6	60.7
Denmark	72.0	71.9	73.4	73.2	74.1	72.7	71.1	70.4	70.0	70.0	69.8
Estonia	61.3	63.1	65.6	66.2	66.6	63.2	60.8	63.0	64.7	65.7	66.3
EU 28**	55.4	56.1	57.1	58.1	58.8	58.3	58.2	58.4	58.6	58.8	59.6
Finland	66.2	66.5	67.3	68.5	69.0	67.9	66.9	67.4	68.2	67.8	68.0
France	58.2	58.4	58.6	59.6	60.2	59.8	59.7	59.7	60.0	60.4	60.9
Germany	58.5	59.6	61.5	63.2	64.3	65.2	66.1	67.8	68.1	69.0	69.5
Greece	45.5	46.0	47.3	47.7	48.6	48.9	48.0	45.0	41.7	39.9	41.1
Hungary	50.5	51.0	51.1	50.7	50.3	49.6	50.2	50.3	51.9	52.6	55.9
Iceland	80.0	80.5	80.8	80.8	79.6	76.5	76.2	76.6	77.8	79.0	79.3
Israel**	51.0	52.5	53.3	54.6	55.6	55.9	56.9	57.5	62.4	63.0	64.2
Ireland	55.8	58.3	59.3	60.6	60.1	57.4	55.8	55.1	55.1	55.9	56.7
Italy	45.4	45.4	46.3	46.6	47.2	46.4	46.1	46.5	47.1	46.5	46.8
Japan**	57.5	58.2	58.9	59.6	60.0	60.0	60.4	61.0	60.7	62.5	63.7
Korea**	52.2	52.5	53.1	53.2	53.2	52.2	52.6	53.1	53.5	53.9	54.9
Latvia	56.0	58.2	61.8	63.9	65.2	60.4	59.0	60.2	61.7	63.4	64.3
Lithuania	58.3	59.6	61.0	62.0	61.8	60.4	58.5	60.2	61.8	62.8	64.9
Luxembourg	51.9	53.7	54.6	56.1	55.1	57.0	57.2	56.9	59.0	59.1	60.5
Malta	31.6	33.4	33.7	36.0	37.7	38.0	39.5	41.5	44.0	47.0	48.5
Mexico**		41.8	43.2	43.7	43.5	43.4	43.2	43.7	44.9	45.0	44.2
Netherlands	65.7	66.4	67.7	69.6	71.1	71.5	69.3	69.9	70.4	69.9	69.1
New Zealand**	66.1	67.6	68.1	68.7	68.7	67.4	66.7	67.2	67.0	67.9	69.3
Norway	72.5	71.7	72.2	74.0	75.4	74.4	73.3	73.4	73.8	73.5	73.4
Poland	46.1	46.8	48.2	50.6	52.4	52.8	52.6	52.7	53.1	53.4	55.2
Portugal	61.5	61.6	61.8	61.8	62.5	61.5	61.0	60.1	58.5	57.9	59.6
Romania	53.5	51.5	53.0	52.8	52.5	52.0	52.5	52.3	52.8	52.6	53.3
Saudi Arabia						15.3		16.7	16.2	16.5	13.8
Slovakia	50.6	50.9	51.9	53.0	54.6	52.8	52.3	52.5	52.7	53.4	54.3
Slovenia	61.3	61.3	61.8	62.6	64.2	63.8	62.6	60.9	60.5	59.2	60.0
Spain	48.5	51.8	53.8	55.3	55.4	53.3	52.8	52.6	51.2	50.3	51.2
Sweden	70.8	70.4	70.7	71.8	71.8	70.2	69.6	71.3	71.8	72.5	73.1
Switzerland	70.3	70.4	71.1	71.6	73.5	73.6	72.5	73.3	73.6	74.4	75.1
Turkey			22.7	22.8	23.5	24.2	26.2	27.8	28.7	29.6	29.5
United Kingdom	65.5	65.8	65.8	65.5	65.8	64.9	64.5	64.4	64.9	65.8	67.1
United States	65.4	65.6	66.1	65.9	65.5	63.4	62.4	62.0	62.2	62.3	63.0

Source: ILOSTAT, * data 2014 = 2014q2, ** Source: stats.oecd

Table 2.3 Employment rate elderly (age 55-64, in %)

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Argentina*	56.1	57.2			59.4	59.2	58.9	60.4	61.1	59.9	60.0
Australia	51.7	53.5	55.4	56.5	57.3	59.0	60.6	61.2	61.5	61.5	61.5
Austria	25.9	29.9	33.0	36.0	38.8	39.4	41.2	39.9	41.6	43.8	45.1
Belgium	30.1	31.8	32.0	34.4	34.5	35.3	37.3	38.7	39.5	41.7	42.7
Bulgaria	33.3	34.7	39.6	42.6	46.0	46.1	43.5	44.6	45.7	47.4	50.0
Canada	53.9	54.8	55.5	57.0	57.2	57.3	58.1	58.4	59.4	60.3	60.4
Chile*								59.7	62.7	63.6	64.4
Croatia	29.9	32.6	34.3	36.6	37.1	39.4	39.1	38.2	37.5	37.8	36.3
Cyprus	51.3	50.6	53.6	55.9	54.8	55.7	56.3	54.8	50.7	49.6	46.9
Czech Republic	42.5	44.5	45.2	46.0	47.6	46.8	46.5	47.7	49.3	51.6	54.0
Denmark	61.8	59.5	60.7	58.9	58.4	58.2	58.4	59.5	60.8	61.7	63.2
Estonia	51.8	55.7	58.4	59.9	62.3	60.3	53.8	57.5	60.5	62.6	64.0
EU 28**	40.4	42.2	43.3	44.5	45.5	45.9	46.2	47.3	48.7	50.1	51.8
Finland	51.1	52.7	54.5	55.0	56.5	55.5	56.2	57.0	58.2	58.5	59.1
France	37.8	38.5	38.1	38.2	38.2	39.0	39.7	41.5	44.5	45.6	47.1
Germany	41.4	45.5	48.1	51.3	53.7	56.1	57.7	60.0	61.6	63.6	65.6
Greece	39.9	42.0	42.5	42.7	43.0	42.4	42.4	39.5	36.5	35.6	34.0
Hungary	30.4	33.0	33.2	32.2	30.9	31.9	33.6	35.3	36.1	37.9	41.8
Iceland	78.9	84.3	84.3	84.7	82.9	80.2	79.8	79.2	79.1	81.1	83.5
Israel**	51.5	52.4	54.8	57.2	58.4	58.8	59.8	61.3	63.1	64.6	65.1
Ireland	49.5	51.6	53.1	53.9	53.9	51.3	50.2	50.0	49.3	51.3	53.0
Italy	30.2	31.4	32.4	33.7	34.3	35.6	36.5	37.8	40.3	42.7	46.2
Japan**	63.1	63.9	64.8	66.4	66.7	66.1	66.0	66.2	65.4	66.9	68.6
Korea**	58.4	58.7	59.3	60.6	60.6	60.4	60.9	62.1	63.1	64.2	65.6
Latvia	44.7	48.3	53.4	58.0	59.1	52.5	47.8	50.5	52.8	54.8	56.4
Lithuania	46.7	49.6	49.7	53.2	53.0	51.2	48.3	50.2	51.7	53.4	56.2
Luxembourg	30.4	31.7	33.2	32.0	34.1	38.2	39.6	39.3	41.0	40.5	42.5
Malta	31.2	31.9	30.7	29.5	30.1	29.1	31.9	33.2	34.7	36.3	37.4
Mexico**		53.1	55.0	54.5	53.7	53.4	53.5	53.8	55.0	55.0	55.0
Netherlands	44.6	46.1	47.7	50.9	53.0	55.1	53.7	56.1	58.6	60.1	60.8
New Zealand**	67.0	69.5	70.2	71.8	71.7	72.1	73.3	73.7	73.9	74.4	76.3
Norway	66.1	65.5	67.4	69.0	69.2	68.7	68.6	69.6	70.9	71.1	72.2
Poland	26.1	27.2	28.1	29.7	31.6	32.3	34.1	36.9	38.7	40.6	42.5
Portugal	50.2	50.4	50.1	51.0	50.7	49.7	49.5	47.8	46.5	46.9	47.8
Romania	37.0	39.4	41.7	41.4	43.1	42.6	40.7	39.9	41.6	41.8	43.1
Saudi Arabia						37.8		41.5	40.6	45.7	45.6
Slovakia	26.0	30.3	33.1	35.6	39.2	39.5	40.5	41.3	43.1	44.0	44.8
Slovenia	30.1	30.7	32.6	33.5	32.8	35.6	35.0	31.2	32.9	33.5	35.4
South Africa					41.5	40.1	37.9	38.7	38.6	39.2	40.6
Spain	41.0	43.1	44.1	44.5	45.5	44.0	43.5	44.5	43.9	43.2	44.3
Sweden	69.0	69.4	69.6	70.0	70.1	70.0	70.4	72.0	73.0	73.6	74.0
Switzerland	65.2	65.1	65.7	67.2	68.4	68.3	68.0	69.5	70.5	71.7	71.6
Turkey			27.7	27.2	27.5	28.2	29.6	31.4	31.9	31.5	31.4
United Kingdom	56.1	56.8	57.3	57.4	58.0	57.5	57.2	56.7	58.1	59.8	61.0
United States	59.9	60.8	61.8	61.8	62.1	60.6	60.3	60.0	60.6	60.9	61.4

Source: ILOSTAT, * data 2014 = 2014q2, ** Source: stats.oecd



Table 2.4 Employment rate 65+ population (in %)

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Argentina*	14.7	16.0			14.1	14.6	14.3	14.5	13.6	13.7	14.4
Australia	6.5	7.3	7.7	8.7	9.3	10.1	10.6	11	11.8	11.9	12.1
Austria	2.2	2.8	3.3	4.4	4.8	5.2	5.1	4.9	4.9	5.1	5.2
Belgium	1.3	2.0	1.7	1.8	1.8	1.7	2.0	2.0	2.3	2.3	2.3
Brazil*									22.1	22.0	21.9
Bulgaria	3.5	2.5	2.7	3.0	3.8	3.3	2.8	2.8	2.8	3.3	3.8
Canada	7.4	7.9	7.9	8.6	9.8	10.0	10.8	11.2	11.9	12.4	12.9
Chile*								22.0	22.0	22.2	22.4
Croatia*	7.5	7.0	6.8	5.2	5.9	6.3	5.4	5.4	4.9	3.9	2.7
Cyprus	10.8	11.4	10.1	10.9	12.3	12.3	12.8	11.1	9.5	7.8	7.2
Czech Republic	3.7	3.7	4.0	4.4	4.5	4.9	4.7	4.6	4.6	5.1	4.9
Denmark	4.5	5.5	5.1	5.3	5.3	5.2	5.6	6.2	6.8	6.4	7.1
Estonia	10.3	9.8	11.3	10.9	10.2	8.8	8.5	9.3	10.2	10.4	10.5
EU 28**	4.2	4.3	4.4	4.6	4.7	4.7	4.7	4.8	5.0	5.1	5.3
Finland	2.0	2.8	3.2	3.8	3.8	3.8	4.1	4.7	5.2	5.2	5.7
France	1.1	1.1	1.0	1.3	1.4	1.3	1.5	1.9	2.2	2.2	2.3
Germany	2.9	3.4	3.4	3.7	3.9	4.0	4.0	4.6	4.9	5.4	5.8
Greece	4.1	4.1	4.3	4.3	4.2	4.2	4.0	3.5	2.7	2.4	2.5
Hungary	1.6	1.5	1.5	1.9	1.9	1.9	1.9	2.1	2.1	2.0	1.8
Iceland	31.8	33.5	32.4	33.0	34.7	34.3	35.0	32.5	32.6	34.1	36
Ireland	7.6	8.0	8.4	9.4	9.7	8.8	8.6	8.5	8.6	9.3	9.8
Italy	3.4	3.1	3.2	3.3	3.3	3.2	3.1	3.2	3.4	3.5	3.7
Japan*										20.1	21.0
Korea*										30.9	33.5
Latvia	9.1	8.1	10.6	11.1	12.2	8.4	5.8	5.6	6.4	7.3	6.9
Lithuania	4.2	3.9	4.5	5.4	5.5	5.1	4.3	5.1	5.7	5.2	5.7
Luxembourg	0.8	0.7	0.6	0.5	0.9	3.6	3.4	3.5	3.5	3.9	4.0
Malta	1.6	2.0	1.9	1.6	1.7	2.8	3.6	3.5	3.8	4.1	5.1
Mexico*					28.2	27.6	27.3	26.4	25.9	26.5	26.6
Netherlands	4.6	4.5	5.0	5.3	5.4	6.5	5.9	5.4	6.4	6.6	7.3
Norway	13.1	12.8	13.8	15.2	16.4	17.2	18.1	18.6	18.6	18.2	10.9
Poland	5.3	5.6	5.1	4.8	4.7	4.7	4.7	4.8	4.7	4.6	4.7
Portugal	17.9	17.9	17.9	18.1	17.6	16.9	16.5	14.4	14.4	13.2	11.7
Romania	15.8	14.6	14.2	16.0	15.2	13.7	12.4	11.9	11.8	11.3	10.8
Saudi Arabia						13.6		16.1	16.9	17.4	17.6
Slovakia	1.2	1.3	1.1	1.1	1.6	1.5	1.6	1.8	1.7	1.6	1.9
Slovenia	7.2	7.8	7.7	8.8	6.4	7.6	7.3	6.3	5.0	5.0	6.7
Spain	1.7	2.0	2.1	2.0	2.1	2.0	2.0	1.9	2.0	1.7	1.6
Sweden	4.6	4.8	4.9	5.5	6.1	6.4	7.0	7.3	8.2	8.2	9.4
Switzerland	8.1	7.4	8.2	8.8	9.4	9.9	9.3	9.9	10.3	10.7	11.7
Turkey			12.0	11.3	11.6	11.7	11.8	12.6	12.3	12.3	11.2
United Kingdom	5.9	6.3	6.8	6.9	7.3	7.6	8.4	8.7	9.0	9.6	10.1
United States	13.9	14.5	15.0	15.5	16.1	16.1	16.2	16.7	17.3	17.7	17.7

Source: ILOSTAT, * data 2014 = 2014q2, ** Source: stats.oecd



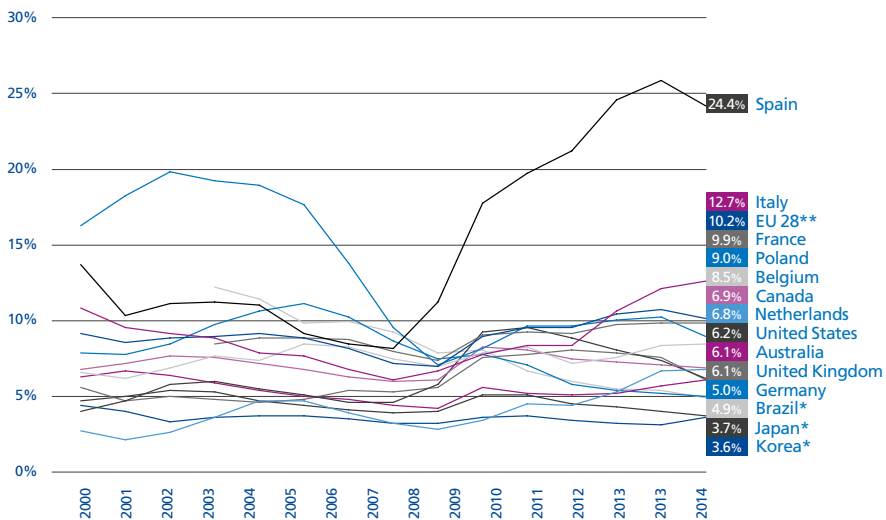


3. unemployment

Slow recovery unemployment

When the unemployment target of the Lisbon agenda was set, in the year 2000, only four countries had an unemployment rate below or just at the target rate of 4 percent, while the EU15 average was at 7.7 percent. Only since 2005 have the figures showed signs of recovery, bringing down unemployment. And then came the financial crisis in the second half of 2008, which rapidly reclaimed the progress that had been made before. In twelve months EU27 unemployment increased by 2 percentage points.

Figure 3.1 Unemployment rate (age 15-64, in %)



Source: ILOSTAT, * data 2014 = 2014q2, ** Source: stats.oecd

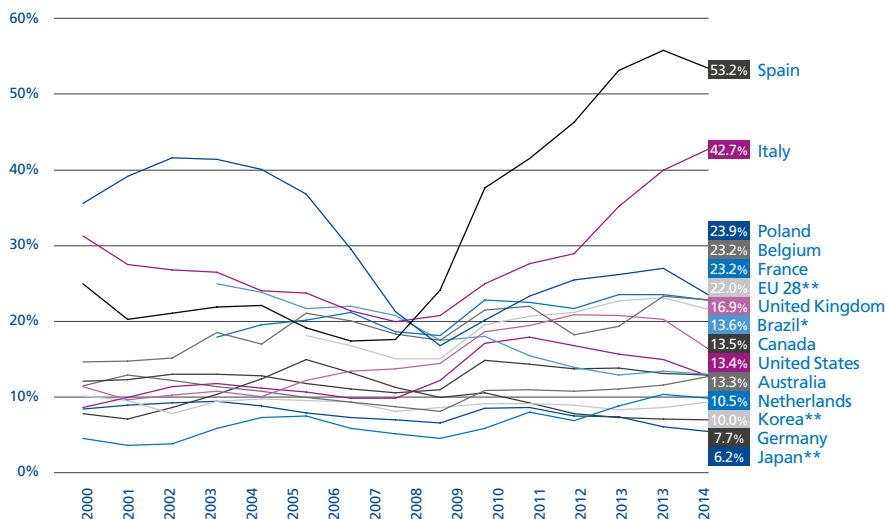
Currently unemployment in the EU is higher than it has been since the mid-nineteen nineties. Spain and Greece had the most dramatic increase. On the other hand Germany showed a decline of unemployment during the crisis where the UK and US showed a quick recovery from the job-crisis.

The unemployment outlook for 2015 diverges widely among countries, with unemployment falling but still remaining very high in Spain (around 24%) and Greece (around 27%). The euro area will see joblessness decline to 11.2% at the end of 2015, from 11.6% in mid-2014, and above 10% in Italy, Portugal, the Slovak Republic and Slovenia. Unemployment is forecast to fall below 5% by the end of 2015 in Austria, Germany, Iceland, Japan, Korea, Mexico, Norway and Switzerland¹.

What about the youth

It is not easy to be young in today's labor market. The global youth unemployment rate is still close to its crisis peak in many countries. Young people have suffered a disproportionate share of job losses during the global economic crisis. In 2014 there were over 5 million young people unemployed in the European Union, 1 million more than before the crisis. In the United States, with 2.8 million young people unemployed, this is still 0.5 million above pre-crisis levels.

Figure 3.2 Youth unemployment rates (age group 15-24, in %)



Source: ILOSTAT, * data 2014 = 2014q2, ** Source: stats.oecd

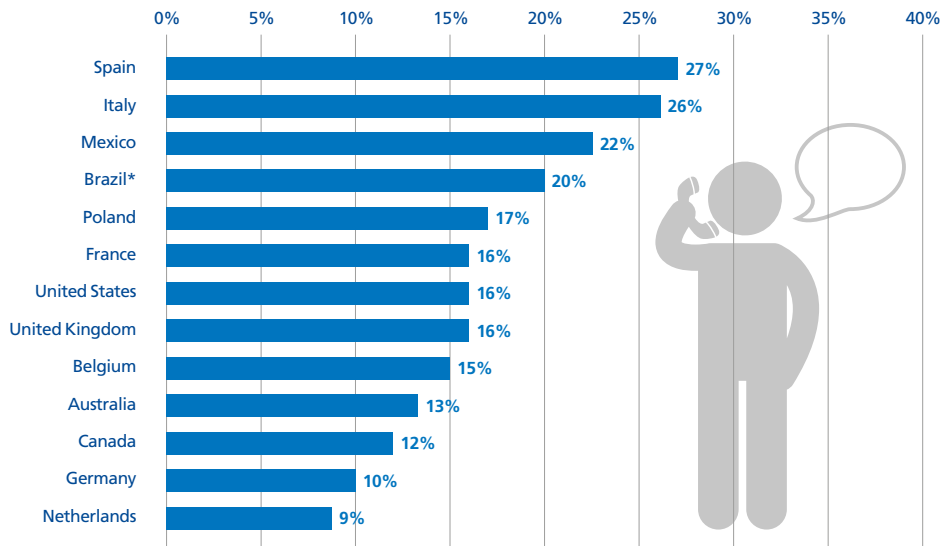
But unemployment does not capture the full hardship for youth, as many of those who have left education do not even appear in labor market statistics. The number of youth aged between 16 and 29 years not in employment, education, or training (NEETs) has increased by 2.5 million (+7%), to 38.4 million in the OECD countries (or 16% of the youth population). Nearly two-thirds of them are not actively looking for a job and 85% of them have not gone beyond upper-secondary education.

¹ OECD employment outlook 2014



Coping with unemployment is difficult for everyone. But for low-skilled youth, and especially those who have left school without qualifications, failure to find a first job or keep it for long can have negative long-term consequences on career prospects – a phenomenon that some experts refer to as “scarring”. In the context of a weak recovery, a significant and growing proportion of youth, even among those who would have performed well in good times, are at risk of prolonged unemployment, with potentially long-term negative consequences for their careers, or so-called “scarring effects”.

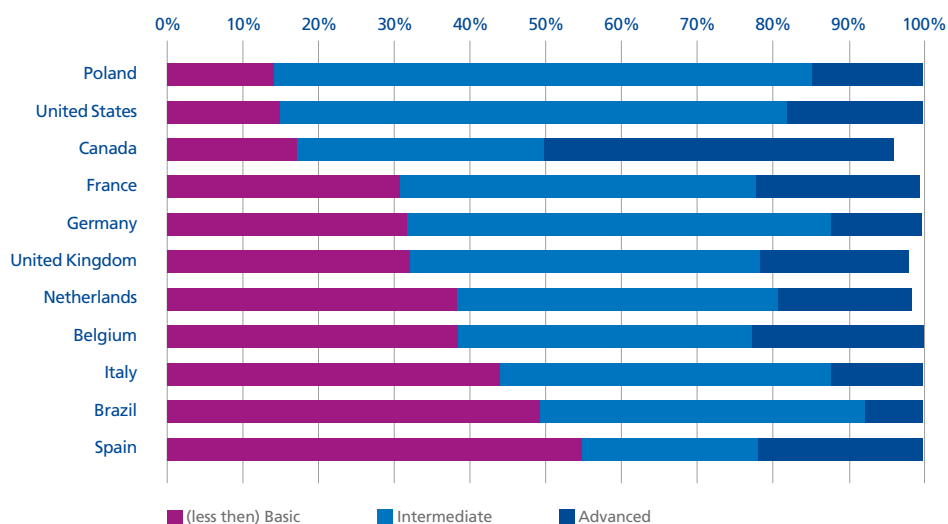
Figure 3.3 Youth neither employed nor in education or training, 15-29 year-olds (2013, in %)



Source: stats.oecd, * data 2012

The risks posed by a “scarred” generation have motivated many governments to take vigorous action, notably by scaling up funds for youth labor market programs like the EU youth guarantee approach. In the context of today’s fragile recovery and mounting fiscal pressures, there is a strong need to keep momentum, by maintaining adequate resources for cost-effective measures for youth. But governments cannot do everything alone, and well-co-ordinated supports and incentives must come from all key stakeholders, including employers, private employment agencies, trade unions, NGOs, and naturally from youth themselves.

Figure 3.4 Distribution of unemployment by skill level (2014, in %)



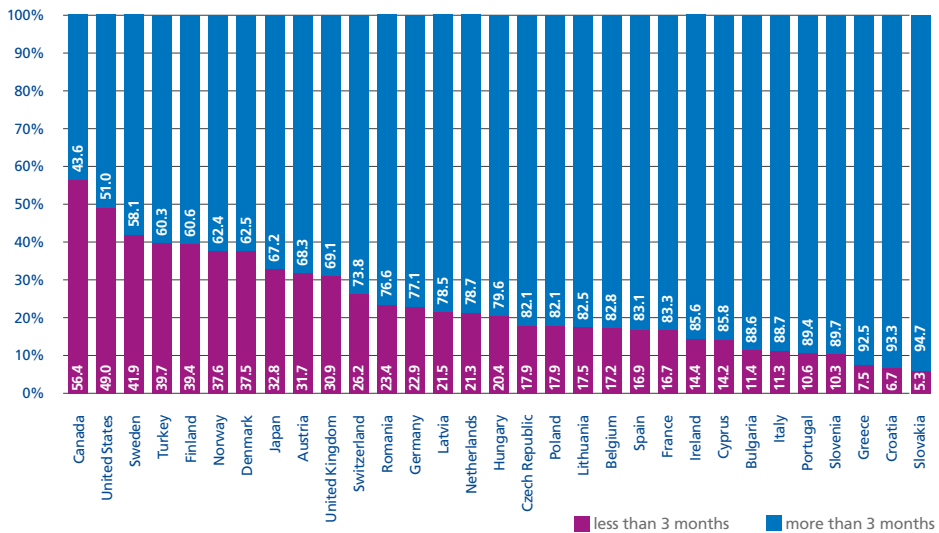
Source: ILOSTAT



Long term unemployment

Long-term unemployment has likely peaked but remains a major concern. Just over 16 million people – over one in three of the unemployed – had been out of work for 12 months or more in the first quarter of 2014, almost double the number at the start of the crisis. In countries hardest hit, notably in Southern Europe, this has led to a rise in structural unemployment which will not be automatically reversed by a pick-up in economic growth. Long-term unemployment reveals an important problem of labor market. Because the longer one stays unemployed, the smaller becomes the chance of getting back into employment. This means that high unemployment on itself is not necessarily the problem, but the persistence of unemployment is. As long as mobility is high, people won't stay unemployed for too long. In the US long-term unemployment has been limited until the latest crisis, but increased sharply since then.

Figure 3.5 Duration of unemployment (2014, in %)



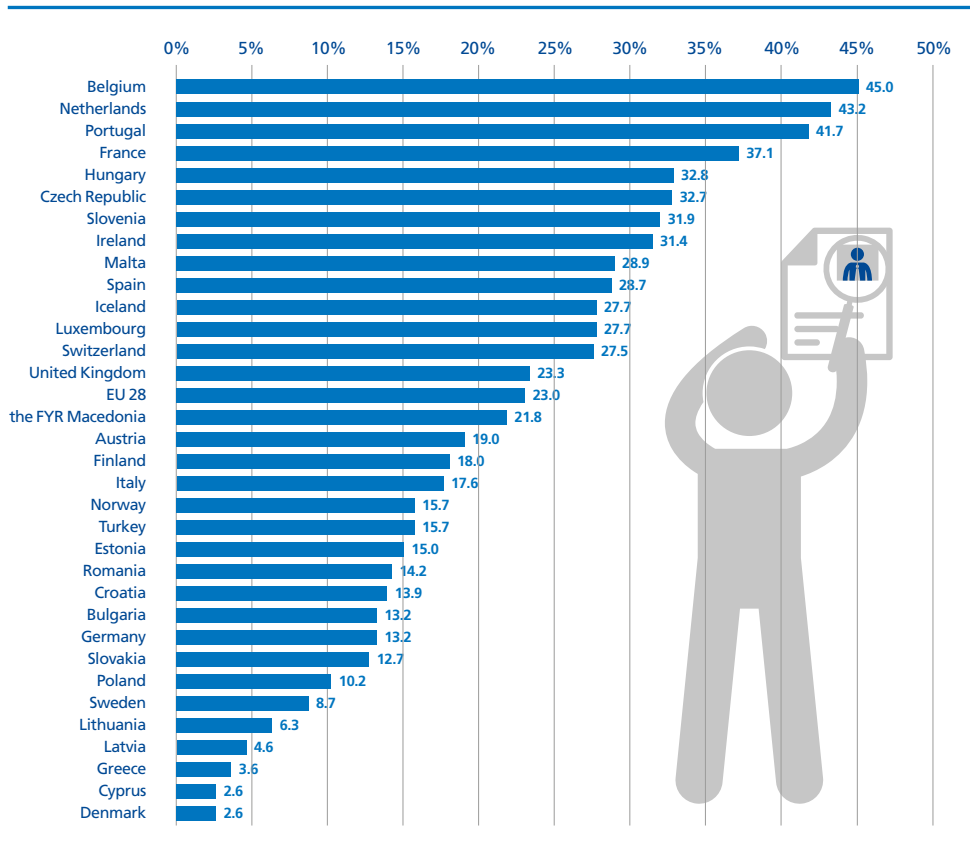
Source: stats.oecd.org

While in the EU the average has always been much higher (around 40% of all unemployed persons) but decreased in 2009 because so there were so many 'new' unemployed. As not all of these newly unemployed could find jobs immediately, the share of long-term unemployment rose again last year. These figures point at a serious problem, because this kind of unemployment is persistent. Chances that these people will return into employment have become quite low during the unemployment period, and it will take a lot of extra effort to make labor market policies effective for this group.

Job search methods

Which methods do unemployed people employ in their search for a new job? How important is the role of private employment agencies? These are not simple and straightforward questions, as the use of temporary work agencies differs strongly between countries. From the EU Labor Force Survey it is known what methods unemployed people have used recently to find a job.

Figure 3.6 Percentage of unemployed who declared having used private employment agencies to find work



Source: Eurostat



On average the use of private employment agencies among jobseekers in Europe has grown steadily, up to 23% in 2013. On country-level however we do not see gradual movements, but sudden increases in 1999-2000 in the Netherlands & Belgium, as well as slow decreases in Ireland and Switzerland since 2003. In Germany and France we do not see spectacular changes, while in Italy private employment agencies became clearly more important in the last ten years. Most important factor here must be regulatory reforms: it was not allowed in every sector in every country to use temporary agency workers. In fact, in some countries bans on the use of temporary agency workers are still in place for specific sectors’.



Table 3.1 Unemployment rates (age group 15-74, in %)

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Argentina*	13.5	11.5			7.8	8.6	7.7	7.2	7.2	7.1	7.5
Australia	5.4	5.0	4.8	4.4	4.2	5.6	5.2	5.1	5.2	5.7	6.1
Austria	5.8	5.6	5.3	4.9	4.1	5.3	4.8	4.6	4.9	5.4	5.6
Belgium	7.4	8.5	8.3	7.5	7.0	7.9	8.3	7.2	7.6	8.4	8.5
Brazil*	11.5	9.9	10.0	9.3	7.9	8.1	6.7	6.0	5.5	5.4	4.9
Bulgaria	12.1	10.1	9.0	6.9	5.6	6.8	10.2	11.3	12.3	13.0	11.4
Canada	7.2	6.8	6.3	6.0	6.1	8.3	8.1	7.5	7.3	7.1	6.9
Chile*								7.1	6.4	6.0	6.5
Croatia	13.7	12.7	11.2	9.9	8.6	9.2	11.7	13.7	16.0	17.3	17.3
Cyprus	4.4	5.3	4.6	3.9	3.7	5.4	6.3	7.9	11.9	15.9	16.1
Czech Republic	8.2	7.9	7.2	5.3	4.4	6.7	7.3	6.7	7.0	7.0	6.1
Denmark	5.2	4.8	3.9	3.8	3.4	6.0	7.5	7.6	7.5	7.0	6.6
Estonia	10.2	8.0	5.9	4.6	5.5	13.5	16.7	12.3	10.0	8.6	7.4
EU 28**	9.2	8.9	8.2	7.2	7.0	9.0	9.6	9.6	10.5	10.8	10.2
Finland	10.4	8.4	7.7	6.9	6.4	8.2	8.4	7.8	7.7	8.2	8.7
France	8.9	8.9	8.8	8.0	7.4	9.1	9.3	9.2	9.8	9.9	9.9
Germany	10.7	11.2	10.3	8.7	7.5	7.8	7.1	5.8	5.4	5.2	5.0
Greece	10.3	10.0	9.0	8.4	7.8	9.6	12.7	17.9	24.5	27.5	26.5
Hungary	5.8	7.2	7.5	7.4	7.8	10.0	11.2	11.0	11.0	10.2	7.7
Iceland	4.0	2.5	2.8	2.3	2.9	7.2	7.6	7.0	6.0	5.4	4.9
India		4.4					3.5				
Indonesia							7.3	6.7	6.2	6.1	
Ireland	4.5	4.4	4.4	4.7	6.4	12.0	13.9	14.7	14.7	13.1	11.3
Israel			8.4	7.3	6.1	7.6	6.6	5.6	6.9	6.2	5.9
Italy	7.9	7.7	6.8	6.1	6.7	7.8	8.4	8.4	10.7	12.2	12.7
Japan*	4.7	4.4	4.1	3.9	4.0	5.1	5.1	4.5	4.3	4.0	3.7
Korea*	3.7	3.7	3.5	3.2	3.2	3.6	3.7	3.4	3.2	3.1	3.6
Latvia	11.7	10.0	7.0	6.1	7.7	17.5	19.5	16.2	15.0	11.9	10.8
Lithuania	10.7	8.3	5.8	4.3	5.8	13.8	17.8	15.4	13.4	11.8	10.7
Luxembourg	5.1	4.5	4.7	4.1	5.1	5.1	4.4	4.9	5.1	5.9	5.9
Malta	7.3	6.9	6.8	6.5	6.0	6.9	6.9	6.4	6.3	6.4	5.9
Mexico*					3.9	5.4	5.3	5.2	4.7	4.9	4.9
Netherlands	4.7	4.7	3.9	3.2	2.8	3.4	4.5	4.4	5.3	6.7	6.8
New Zealand*	4.0	3.8	3.8	3.7	4.2	6.1	6.5	6.5	6.9	6.2	6.2
Norway	4.3	4.4	3.4	2.5	2.5	3.1	3.5	3.2	3.1	3.4	3.5
Philippines							7.4	7.0	7.0	7.1	6.8
Poland	19.1	17.8	13.9	9.6	7.1	8.2	9.7	9.7	10.1	10.3	9.0
Portugal	6.4	7.7	7.8	8.1	7.7	9.6	11.0	12.9	15.8	16.4	13.9
Romania	7.7	7.2	7.3	6.4	5.8	6.9	7.0	7.2	6.8	7.1	6.8
Russia*			7.2	6.1	6.3	8.5	7.5	6.6	5.5	5.5	5.0
Saudi Arabia				5.7	5.1	5.4		5.8	5.6	5.7	5.9
Slovakia	18.6	16.3	13.4	11.1	9.5	12.0	14.4	13.6	14.0	14.2	13.2
Slovenia	6.0	6.5	6.0	4.9	4.4	5.9	7.3	8.2	8.9	10.1	9.7
South Africa					22.8	23.9	24.9	24.7	25.1	24.9	
Spain	11.1	9.2	8.5	8.2	11.3	17.9	19.9	21.4	24.8	26.1	24.4
Sweden	6.7	7.8	7.1	6.2	6.2	8.4	8.6	7.8	8.0	8.1	8.0
Switzerland	4.3	4.5	4.0	3.7	3.4	4.1	4.6	4.1	4.2	4.4	4.5
Turkey			8.8	8.9	9.8	12.6	10.7	8.8	8.2	8.8	9.9
United Kingdom	4.6	4.8	5.4	5.3	5.6	7.6	7.8	8.1	7.9	7.6	6.1
United States	5.5	5.1	4.6	4.6	5.8	9.3	9.6	8.9	8.1	7.4	6.2
Viet Nam*											2.0

Source: ILOSTAT, * data 2014 = 2014q2, ** Source: stats.oecd

**Table 3.2 Youth unemployment rates (age group 15-24, in %)**

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Argentina*	29.3	26.0			18.8	21.2	19.4	18.7	18.3	19.4	18.9
Australia	11.4	10.6	10.0	9.4	8.8	11.5	11.6	11.4	11.7	12.2	13.3
Austria	12.1	11.0	9.8	9.4	8.5	10.7	9.5	8.9	9.4	9.7	10.3
Belgium	17.5	21.5	20.5	18.8	18.0	21.9	22.4	18.7	19.8	23.7	23.2
Brazil*	24.2	22.1	22.4	21.2	18.0	18.5	16.0	14.5	13.5	14.0	13.6
Bulgaria	24.5	22.3	19.5	15.1	12.7	16.2	23.2	25	28.1	28.4	23.8
Canada	13.4	12.4	11.7	11.2	11.6	15.4	14.9	14.3	14.4	13.7	13.5
Chile**		19.7	18.3	17.8	19.7	22.6	18.5	17.5	16.3	16.0	16.4
Croatia	32.8	32.3	28.9	25.2	23.7	25.2	32.4	36.7	42.1	50.0	45.5
Cyprus	8.7	13.9	10.0	10.2	9.0	13.8	16.6	22.4	27.7	38.9	35.9
Czech Republic	19.9	19.2	17.5	10.7	9.9	16.6	18.3	18.1	19.5	19.0	15.8
Denmark	7.8	8.6	7.7	7.5	8.0	11.8	14.0	14.2	14.1	13.1	12.6
Estonia*	25.7	15.1	12.1	10.1	12.0	27.4	32.9	22.4	20.9	18.7	16.9
EU 28**		18.6	17.3	15.6	15.6	20.0	21.1	21.6	23.1	23.5	22.0
Finland	27.5	20.1	18.7	16.5	16.5	21.5	21.4	20.1	19.0	19.9	20.5
France	20.0	20.6	21.6	19.1	18.6	23.2	22.9	22.1	23.9	23.9	23.2
Germany	13.0	15.5	13.8	11.9	10.6	11.2	9.9	8.5	8.0	7.8	7.7
Greece	26.1	25.8	25.0	22.7	21.9	25.7	33.0	44.7	55.3	58.3	52.4
Hungary	14.4	19.4	19.1	18.0	19.5	26.4	26.4	26.0	28.2	26.6	20.4
Iceland	12.1	7.4	8.3	7.0	8.2	15.9	16.2	14.4	13.5	10.6	9.8
India		10					10.2				
Indonesia							20.7	21.9	19.3	31.3	
Ireland	8.3	8.6	8.6	9.1	13.3	24.0	27.6	29.1	30.4	26.8	23.9
Israel**	20.4	17.7	18.2	16.0	12.6	14.6	13.6	11.6	12.1	10.5	10.5
Italy	24.4	24.1	21.8	20.4	21.2	25.3	27.9	29.2	35.3	40.0	42.7
Japan**	9.5	8.6	8.0	7.7	7.3	9.2	9.3	8.2	8.1	6.8	6.2
Korea**	10.4	10.2	10.0	8.8	9.3	9.8	9.8	9.6	9.0	9.3	10.0
Latvia	21.8	15.1	13.6	10.6	13.6	33.3	36.2	31.0	28.5	23.2	19.6
Lithuania	20.3	15.8	10.0	8.4	13.3	29.6	35.7	32.6	26.7	21.9	19.3
Luxembourg*	16.9	13.7	16.2	15.2	17.9	17.2	14.2	16.8	18.8	15.5	16.9
Malta*	18.3	16.1	15.5	13.5	11.7	14.5	13.2	13.3	14.1	13.0	13.1
Mexico**		7.0	7.1	7.4	7.9	10.3	9.8	9.8	9.4	9.5	9.5
Netherlands	8.0	8.2	6.6	5.9	5.3	6.6	8.7	7.6	9.5	11.0	10.5
New Zealand**	9.7	9.7	9.9	10.0	11.4	16.6	17.1	17.3	17.6	15.8	14.6
Norway	12.8	11.5	8.7	7.4	7.5	9.2	9.3	8.7	8.5	9.1	7.9
Philippines							17.6	16.3	16.2	16.2	15.7
Poland	40.1	36.9	29.8	21.7	17.3	20.6	23.7	25.8	26.5	27.3	23.9
Portugal	14.1	16.2	16.5	16.7	16.7	20.3	22.8	30.3	37.9	38.1	34.8
Romania	22.3	20.2	21.4	20.1	18.6	20.8	22.1	23.9	22.6	23.7	24
Russia*			15.7	14.5	14.1	18.7	17.2	15.5	14.8	13.8	13.2
Saudi Arabia				29.8	29.3	29.9		29.9	28.3	29.5	30.4
Slovakia	32.8	30.1	26.6	20.3	19.0	27.3	33.6	33.4	34.0	33.7	29.7
Slovenia	14.0	15.9	13.9	10.1	10.4	13.6	14.7	15.7	20.6	21.6	20.2
South Africa					45.5	48.1	50.5	49.8	51.5	51.1	
Spain	22.5	19.6	17.9	18.1	24.5	37.7	41.5	46.2	52.9	55.5	53.2
Sweden	18.5	22.8	21.5	19.3	20.2	25.0	24.8	22.8	23.6	23.5	22.9
Switzerland	7.7	8.8	7.7	7.1	7.0	8.5	7.9	7.7	8.4	8.5	8.6
Turkey			16.4	17.2	18.5	22.8	19.7	16.7	15.7	16.9	17.8
United Kingdom	10.7	12.8	14.0	14.3	15.0	19.1	19.9	21.3	21.2	20.7	16.9
United States	11.8	11.3	10.5	10.5	12.8	17.6	18.4	17.3	16.2	15.5	13.4
Viet Nam											6.7

Source: ILOSTAT, * data 2014 = 2014q2, ** Source: stats.oecd

Table 3.3 Youth neither employed nor in education or training (age 15-29 year, in %)

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Australia	13.2	11.4	11.4	10.5	10.4	12.3	11.8	11.5	11.7	13.0
Austria		11.0	11.6	10.7	10.4	11.1	11.1	9.8	9.7	9.6
Belgium	12.9	14.2	13.9	12.7	12.1	12.7	14.2	13.9	15.0	14.9
Brazil				19.9	19.0	19.6		19.3	20.0	
Canada	13.7	12.4	12.0	12.1	11.7	13.3	13.5	13.3	13.2	12.4
Chile								22.3		
Colombia										21.6
Czech Republic	18.5	15.9	14.1	11.7	10.9	12.8	13.2	12.7	13.4	13.2
Denmark	5.8	8.2	6.2	7.1	6.9	9.0	10.5	11.0	12.0	11.7
Estonia		14.8	11.4	13.0	11.3	19.0	19.1	15.2	15.9	14.8
Finland		10.9	10.4	10.1	9.9	12.0	12.6	11.8	11.9	12.3
France	15.0	14.5	15.2	14.5	14.0	15.6	16.6	16.4	16.6	16.3
Germany	13.3	14.7	13.6	12.6	11.6	11.6	12.0	11.0	9.9	9.7
Greece	21.5	19.7	16.9	16.8	16.2	16.8	18.3	21.8	27.0	28.5
Hungary	20.2	17.2	17.0	15.6	16.3	17.7	18.9	18.5	18.9	20.5
Iceland	4.1	6.8	3.9	5.3	4.3	9.0	10.3	8.5	8.9	7.9
Ireland	9.0	10.5	10.4	10.7	12.8	18.6	20.8	21.9	21.1	19.2
Israel		30.8	30.0	30.1	27.8	29.0	27.8	27.5	15.7	15.0
Italy	23.3	21.1	20.1	20.0	19.2	21.2	23.0	23.2	24.6	26.1
Korea					18.5	19.0	19.2	18.8	18.5	
Latvia							22.9	19.6	19.1	15.8
Luxembourg	8.1	7.3	8.6	8.9	8.5	7.9	7.1	7.2	8.2	6.1
Mexico	24.6	24.9	24.2	24.2	23.9	24.8	23.7	24.0	22.9	22.3
Netherlands	8.3	7.3	6.2	6.7	5.1	7.0	6.8	6.9	6.7	8.9
New Zealand		12.0	12.0	12.0	12.1	14.8	15.3	14.3	14.8	14.1
Norway	7.0	8.1	7.9	7.5	6.7	8.0	8.4	8.5	8.4	9.1
Poland	22.1	18.4	17.4	15.5	13.7	14.2	15.0	15.5	16.0	17.0
Portugal	10.5	12.9	12.4	13.4	12.2	12.8	13.5	15.3	16.6	17.3
Slovak Republic	30.4	20.5	19.1	17.2	16.2	16.1	18.8	19.1	18.8	19.1
Slovenia		10.1	10.8	10.1	8.5	9.0	8.8	10.7	11.0	13.2
Spain	15.3	16.9	15.6	15.4	16.4	22.3	23.3	24.0	25.3	26.8
Sweden	7.9	9.2	10.5	10.1	8.7	11.0	10.3	9.1	9.7	9.4
Switzerland	8.3	10.4	10.0	10.2	9.6	10.7	9.7	9.0	9.6	9.0
Turkey	37.8	43.6	42.6	41.3	42.0	39.6	36.6	34.6	29.2	31.3
United Kingdom	13.3	14.2	15.1	14.9	14.8	15.7	15.9	15.5	16.3	15.6
United States	12.2	13.1	12.8	13.1	14.6	16.9	16.1	15.9	15.2	16.0

Source: stats.oecd.org



Table 3.4 Distribution of unemployment by skill level (2014, in %)

Country	(Less than) Basic	Intermediate	Advanced
Argentina	45.7	45.3	9.0
Austria	28.8	48.0	23.2
Belgium	38.4	39.0	22.7
Brazil	49.3	43.1	7.6
Bulgaria	32.8	53.6	13.6
Canada	17.1	32.8	46.2
Chile	15.9	50.1	33.9
Croatia	18.4	67.0	14.3
Cyprus	21.6	44.1	34.2
Czech Republic	17.5	72.9	9.6
Denmark	35.6	37.6	21.0
Estonia	20.5	56.8	22.9
Finland	31.2	47.2	21.6
France	30.8	47.1	21.7
Germany	31.7	56.2	12.0
Greece	29.7	47.9	22.4
Hungary	30.7	59.3	10.0
Iceland	43.6	35.5	21.8
Ireland	26.6	46.8	24.4
Italy	44.0	43.9	12.1
Korea, Republic of	11.1	43.7	45.2
Latvia	20.2	62.4	17.2
Lithuania	18.0	68.3	13.5
Luxembourg	11.6	45.0	38.8
Malta	72.1	20.7	7.2
Mexico	20.8	38.7	40.4
Netherlands	38.3	42.6	17.7
Norway	39.3	34.3	23.8
Poland	14.1	71.2	14.7
Portugal	58.1	25.4	16.5
Romania	26.0	60.7	13.3
Russian Federation	11.5	52.4	36.1
Slovakia	20.1	70.3	9.6
Slovenia	20.1	62.0	18.0
Spain	54.9	23.3	21.8
Sweden	43.1	38.5	18.2
Switzerland	28.1	46.5	25.2
Turkey	56.9	24.2	18.9
United Kingdom	32.1	46.3	19.8
United States	14.9	67.1	18.0

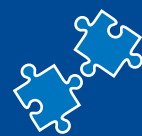
Source: stats.oecd.org



Table 3.5 Duration of unemployment (2014, in %)

Country	Less than 3 months	3 months to less than 6 months	6 months to less than 12 months	12 months to less than 24 months	24 months or more
Austria	31.7	19.7	21.2	16.0	11.4
Belgium	17.2	14.9	17.6	18.8	31.6
Bulgaria	11.4	10.9	19.6	21.9	36.2
Canada	56.4	16.7	9.9		
Croatia	6.7	11.6	23.7	19.6	38.4
Cyprus	14.2	15.0	20.5	27.3	22.8
Czech Republic	17.9	17.5	21.3	19.2	24.0
Denmark	37.5	21.9	17.5	13.0	10.1
Finland	39.4	27.3	14.3	10.9	8.1
France	16.7	16.0	23.1	21.1	22.4
Germany	22.9	14.7	16.2	15.7	29.8
Greece	7.5	6.9	11.2	25.5	48.9
Hungary	20.4	12.3	18.4	20.8	28.1
Ireland	14.4	11.4	14.9	15.7	41.9
Italy	11.3	11.1	14.6	22.1	40.0
Japan	32.8	12.6	13.4	16.2	22.3
Latvia	21.5	17.5	21.2	17.5	22.3
Lithuania	17.5	15.4	22.7	20.0	24.4
Netherlands	21.3	17.8	19.8	20.4	19.4
Norway	37.6	21.1	11.9	13.8	
Poland	17.9	18.0	21.1	23.1	19.9
Portugal	10.6	11.5	15.5	22.3	40.1
Romania	23.4	16.5	17.6	23.3	19.3
Slovakia	5.3	7.2	16.0	19.8	51.8
Slovenia	10.3	14.9	17.7	22.8	34.3
Spain	16.9	12.9	17.4	19.5	33.3
Sweden	41.9	19.5	16.8	9.1	7.6
Switzerland	26.2	16.4	22.5	17.6	17.2
Turkey	39.7	21.2	16.0	15.9	7.1
United Kingdom	30.9	15.4	16.7	16.1	20.6
United States	49.0				

Source: stats.oecd.org



4. skills mismatch / talent gap

Skills mismatch

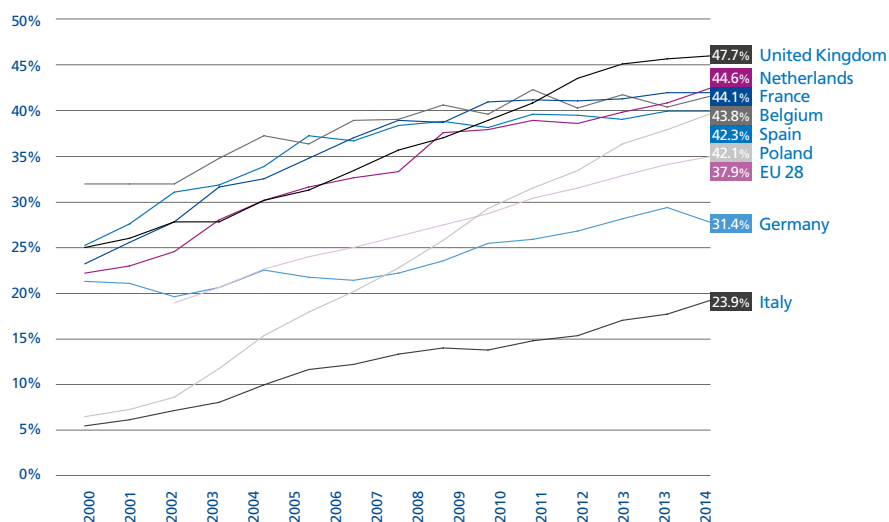
Over the past five decades, the balance among employment sectors – and the kinds of skills required by those sectors – has been shifting. Occupations, both traditional and new, require more highly skilled workers. Currently the Information Age affects the workforce in several ways. Especially the medium-skilled workers are being replaced by computers that can do the job more effectively and faster. Firstly, this has created a situation in which workers who perform tasks which are easily automated are being forced to find work which involves tasks that are not easily automated. And secondly, workers are being forced to compete in a global job market.

The Randstad/SEO report 'Into the Gap (2012) showed jobs traditionally associated with the middle class (assembly line workers, data processors, foremen and supervisors) are beginning to disappear, either through relocation or automation. Workers must either move up, joining the group of "knowledge workers" which will continue to grow in demand (engineers, doctors, attorneys, teachers, scientists, professors, executives, consultants), or settle for low-skill, low-wage service jobs thereby pushing the low-educated out of the labor market.

Being skilled has always been an advantage – if not a necessity – for individual workers. Today, having a skilled workforce is just as much a necessity for countries competing in an advanced economy. Promoting education and training is an important facet of developing a skilled workforce. On average, OECD countries spend about 6% of their GDP on educational institutions. Since the 1980s, most countries have worked to increase the proportion of students who complete secondary education and move on to post-secondary and higher education. The EU has set a target of at least 40% of 30-34-year-olds having completed third level education by 2020.



Figure 4.1 Tertiary educational attainment, age group 30-34 (in %)



Source: Eurostat

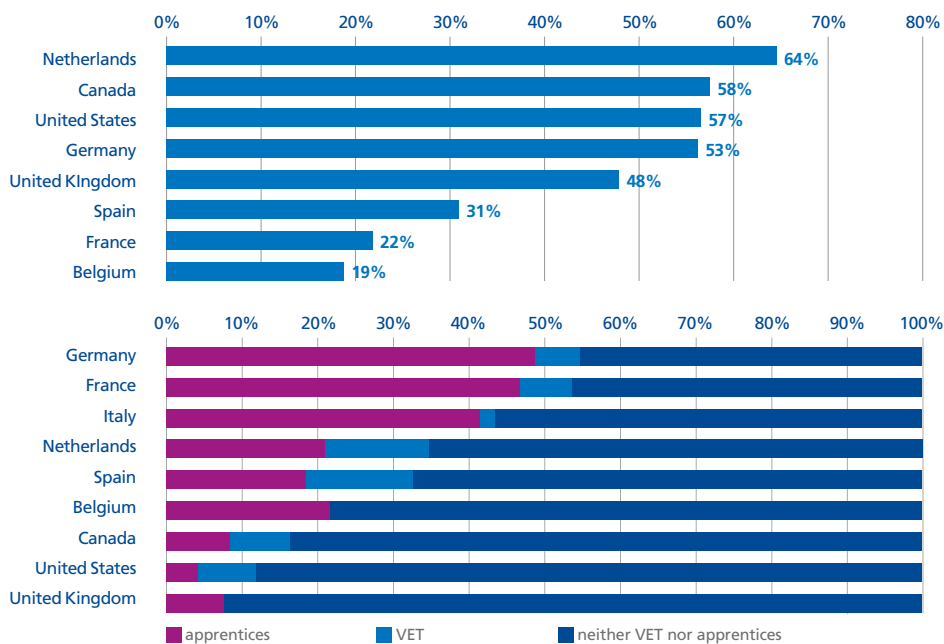
Access to education is an essential element in generating innovation. Skilled people generate knowledge that can be used to create and implement innovations. Educated workers also have a better start for acquisition of further skills and they may spur faster human capital accumulation by other workers. On the other hand, a concern is that in the not too distant future, only the highly skilled will have access to rewarding professional careers, and that this trend will further increase the already high levels of inequality.

Even at the height of the crisis employers reported having difficulties in finding workers with the appropriate skills. Employers say they cannot fill vacancies because even highly-qualified candidates have the wrong skills. The education systems educate graduates of tomorrow in the skills needed in the industry yesterday' as they claim. Many employers are concerned that applicants lack 'soft skills', such as interpersonal communication and analytical problem-solving abilities. This clearly indicates that jobs in growing sectors such as health, education and other services require a different set of skills than those acquired by unemployed people who worked in declining sectors, such as agriculture and manufacturing.



Young people need to be equipped with a range of skills to succeed in today's complex marketplace. Business and policymakers are looking beyond tertiary education to apprenticeships as a possible way of addressing the talent mismatch, and improving job prospects. Countries with strong traditions of apprenticeships (Germany, Austria and Switzerland), proved resilient during the 2008 downturn; and registered less than 9% youth unemployment, compared to the OECD average of 16%. But for apprenticeship programs to be adopted in more countries, a number of structural issues need to be addressed, e.g. skill certification, age restrictions and financing.

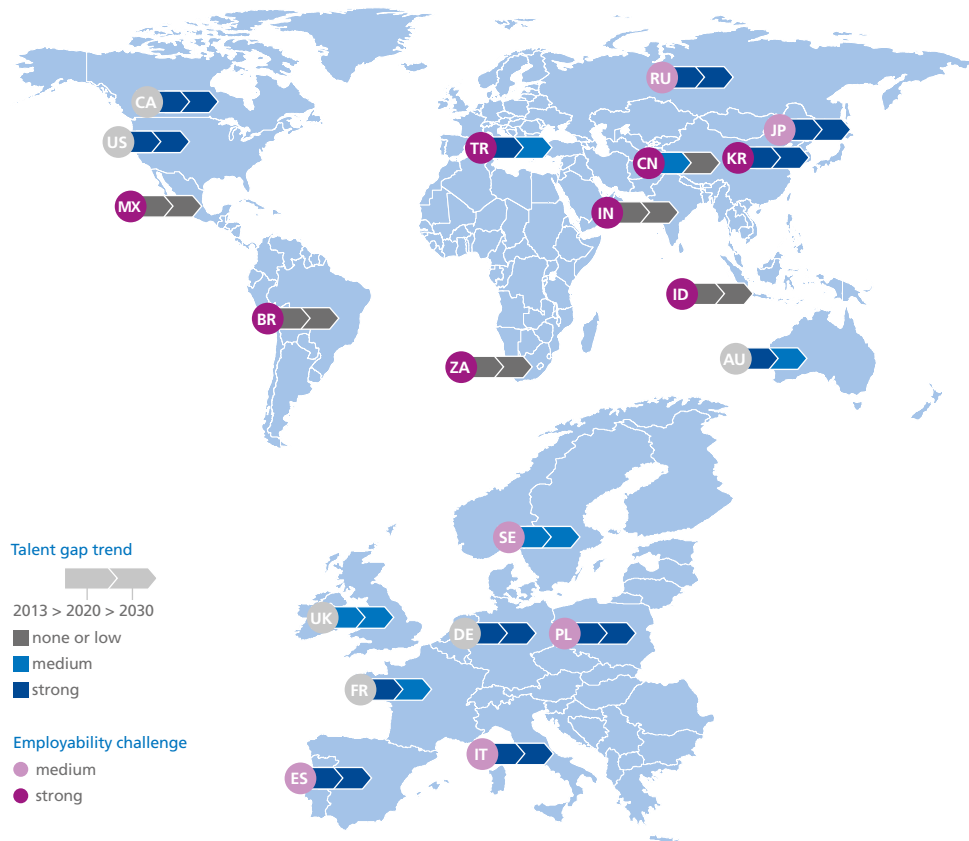
Figure 4.2 Youth combining work with study



Source: employment outlook 2014

Significant talent challenges are looming in the Northern and Southern hemispheres by 2020 and beyond. In the Northern hemisphere, the expected talent gaps will be caused mainly by demographic shifts – notably, the retirement of baby boomers. For example in the United States, Germany, Canada and the United Kingdom, immigration and expected birth rates will not balance the workforce losses caused by ageing populations. Over the next decade, Western Europe's talent supply will continuously decrease, leading to almost empty talent pipelines beyond 2020. Economic growth expectations coinciding with projected waves of retirements will force employers to find, attract and retain scarce talent.

Figure 4.3 The talent gap, shortages of high-skilled workers towards 2030

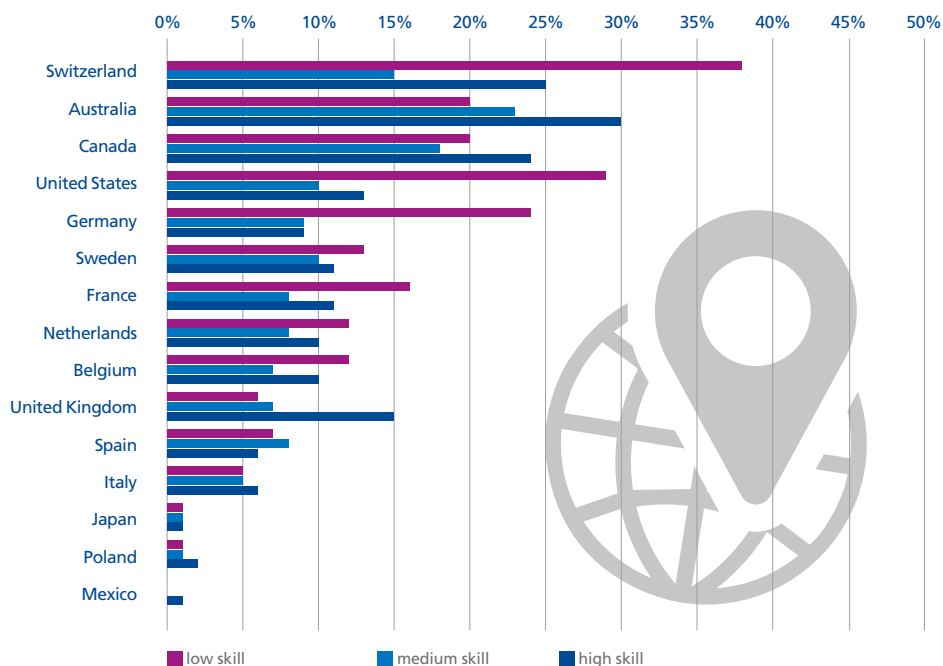


Note: colour codes based on compound annual growth rates of talent supply and demand by 2020 and 2030
Based on: WEF Global Talent Risk report, 2011

Investment in STEM disciplines (science, technology, engineering and mathematics) is increasingly seen in the US and Europe as a means to boost innovation and economic growth. The importance of science education is recognized on both sides of the Atlantic but the debate gets particularly heated when it intersects with immigration. Europe is in a similar position to the US, but has much more rigid immigration policies making that Europe attracts fewer high-skilled workers than not only the US, but also Canada and Australia. Only 3% of scientists in the EU come from non-EU countries, whereas in the US 16% of scientists come from abroad. Internal mobility in the EU has also been stagnant. In 2014 only 2.7% of Europeans lived in another member state.



Figure 4.4 Share of foreign-born employees in total employment, by skill-level



Source: A Profile of Immigrant Populations in the 21st Century (OECD, 2008)

A global labor market is already here, but we lack the institutions to make it work effectively. Global shortage of STEM skills is not the real problem for the world economy, but the location mismatch between employers and employees. Talented people cannot move to where the jobs are. Several US and European firms have moved their R&D operations offshore over the last two decades, which diminishes the number of STEM jobs in both the US and Europe. Demand has not dropped, but has relocated to countries such as China and India. Therefore Randstad, together with IZA, the Institute for the Study of Labor, is currently researching the global 'jobs to people, people to jobs' mobility of which the report will be published in 2016.

Table 4.1 Europe, non-national citizens in employment (2014Q4)

Country	Total employed	Non-national citizens		EU-28 nationality		Other nationalities	
		in 000s	in %	in 000s	in %	in 000s	in %
Austria	4,124	533	12.9%	312	7.6%	221	5.4%
Belgium	4,575	450	9.8%	337	7.4%	112	2.5%
Bulgaria	2,990						
Croatia	1,552						
Cyprus	369	66	18.0%	36	9.8%	30	8.2%
Czech Republic	5,017	98	1.9%	46	0.9%	52	1.0%
Denmark	2,753	213	7.7%	106	3.9%	107	3.9%
Estonia	630	95	15.0%	5	0.8%	90	14.2%
EU-28	218,917	15,452	7.1%	7,539	3.4%	7,913	3.6%
Finland	2,418	71	2.9%	37	1.5%	34	1.4%
France	25,715	1,402	5.5%	630	2.4%	772	3.0%
Germany	40,180	3,781	9.4%	1,891	4.7%	1,890	4.7%
Greece	3,535	263	7.4%	53	1.5%	209	5.9%
Hungary	4,142	28	0.7%	19	0.5%	8	0.2%
Iceland	177	10	5.7%	8	4.5%	2	1.2%
Ireland	1,939	286	14.7%	205	10.6%	81	4.2%
Italy	22,375	2,305	10.3%	768	3.4%	1,537	6.9%
Latvia	882						
Lithuania	1,322						
Luxembourg	250	129	51.4%	120	47.9%	9	3.5%
Malta	180	8	4.2%	3	1.4%	5	2.7%
Netherlands	8,376	334	4.0%	187	2.2%	147	1.8%
Norway	2,639	227	8.6%	164	6.2%	63	2.4%
Poland	16,017	31	0.2%	8	0.1%	23	0.1%
Portugal	4,492	106	2.4%	25	0.6%	80	1.8%
Romania	8,554						
Slovakia	2,391	7	0.3%	4	0.2%	2	0.1%
Slovenia	915	25	2.8%	4	0.4%	21	2.3%
Spain	17,569	1,865	10.6%	778	4.4%	1,087	6.2%
Sweden	4,773	269	5.6%	139	2.9%	131	2.7%
Switzerland	4,625	1,148	24.8%	832	18.0%	316	6.8%
United Kingdom	30,884	2,968	9.6%	1,823	5.9%	1,145	3.7%

Source: Eurostat

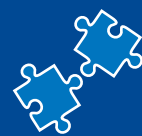
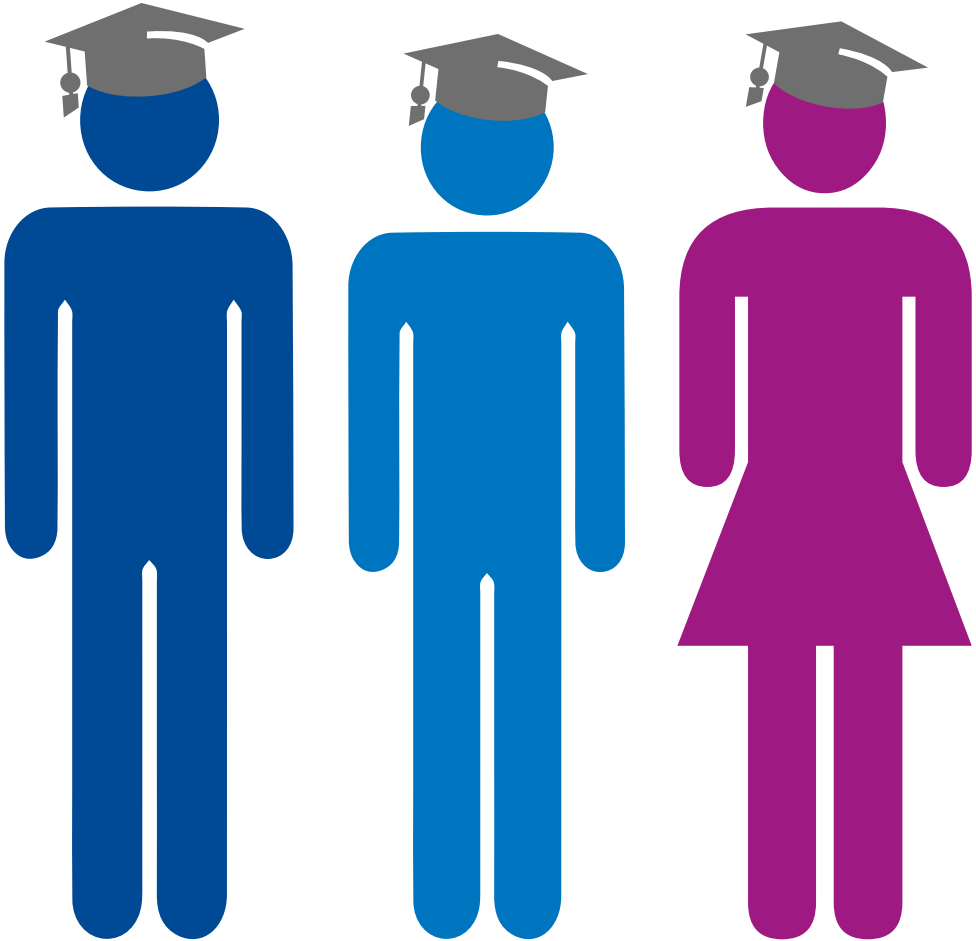


Table 4.2 Tertiary educational attainment, age group 30-34 (in %)

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Austria	20.9	20.7	21.1	20.9	21.9	23.4	23.4	23.6	26.1	27.1	40.0
Belgium	39.9	39.1	41.4	41.5	42.9	42.0	44.4	42.6	43.9	42.7	43.8
Bulgaria	25.2	24.9	25.3	26.0	27.1	27.9	27.7	27.3	26.9	29.4	30.9
Croatia	16.8	17.4	16.7	16.8	18.5	21.3	24.5	23.9	23.1	25.6	32.2
Cyprus	41.0	40.8	46.1	46.2	47.1	45.0	45.3	46.2	49.9	47.8	52.5
Czech Republic	12.7	13.0	13.1	13.3	15.4	17.5	20.4	23.7	25.6	26.7	28.2
Denmark	41.4	43.1	43.0	38.1	39.2	40.7	41.2	41.2	43.0	43.4	44.1
Estonia	28.3	31.7	32.5	33.5	34.4	36.3	40.2	40.2	39.5	43.7	46.6
EU-28	26.9	28.1	29.0	30.1	31.2	32.3	33.8	34.8	36.0	37.1	37.9
Finland	43.4	43.7	46.2	47.3	45.7	45.9	45.7	46.0	45.8	45.1	45.3
France	35.7	37.7	39.7	41.4	41.2	43.2	43.4	43.3	43.5	44.1	44.1
FYR Macedonia			11.6	12.2	12.4	14.3	17.1	20.4	21.7	23.1	24.9
Germany	26.8	26.1	25.8	26.5	27.7	29.4	29.8	30.6	31.8	32.9	31.4
Greece	25.1	25.5	26.9	26.3	25.7	26.6	28.6	29.1	31.2	34.9	37.2
Hungary	18.5	17.9	19.4	20.6	22.8	24.0	26.1	28.2	29.8	32.3	34.1
Iceland	38.8	41.1	36.4	36.3	38.3	41.7	40.9	44.6	42.8	43.9	45.9
Ireland	38.6	39.2	41.3	43.3	46.3	48.9	50.1	49.7	51.1	52.6	52.2
Italy	15.6	17.1	17.6	18.6	19.2	19.0	19.9	20.4	21.9	22.5	23.9
Latvia	18.2	18.5	19.3	25.7	26.3	30.5	32.6	35.9	37.2	40.7	39.9
Lithuania	30.9	37.7	39.4	36.4	39.9	40.4	43.8	45.7	48.6	51.3	53.3
Luxembourg	31.4	37.6	35.5	35.3	39.8	46.6	46.1	48.2	49.6	52.5	52.7
Malta	17.6	17.6	20.7	20.8	21.0	21.9	22.1	23.4	24.9	26.0	26.6
Netherlands	33.6	34.9	35.8	36.4	40.2	40.5	41.4	41.1	42.2	43.1	44.6
Norway	39.5	39.4	41.9	43.7	46.2	47.0	47.3	48.8	47.6	48.8	52.1
Poland	20.4	22.7	24.7	27.0	29.7	32.8	34.8	36.5	39.1	40.5	42.1
Portugal	16.3	17.5	18.3	19.5	21.6	21.3	24.0	26.7	27.8	30.0	31.3
Romania	10.3	11.4	12.4	13.9	16.0	16.8	18.3	20.3	21.7	22.9	25.0
Slovakia	12.9	14.3	14.4	14.8	15.8	17.6	22.1	23.2	23.7	26.9	26.9
Slovenia	25.1	24.6	28.1	31.0	30.9	31.6	34.8	37.9	39.2	40.1	41.0
Spain	36.9	39.9	39.4	40.9	41.3	40.7	42.0	41.9	41.5	42.3	42.3
Sweden	33.9	37.6	39.5	41.0	42.0	43.9	45.3	46.8	47.9	48.3	49.9
Switzerland	32.8	33.4	35.0	36.5	41.3	43.4	44.2	43.8	43.8	46.1	49.2
Turkey			11.9	12.3	13.0	14.7	15.5	16.3	18.0	19.5	21.5
United Kingdom	33.6	34.6	36.5	38.5	39.7	41.4	43.1	45.5	46.9	47.4	47.7

Source: Eurostat





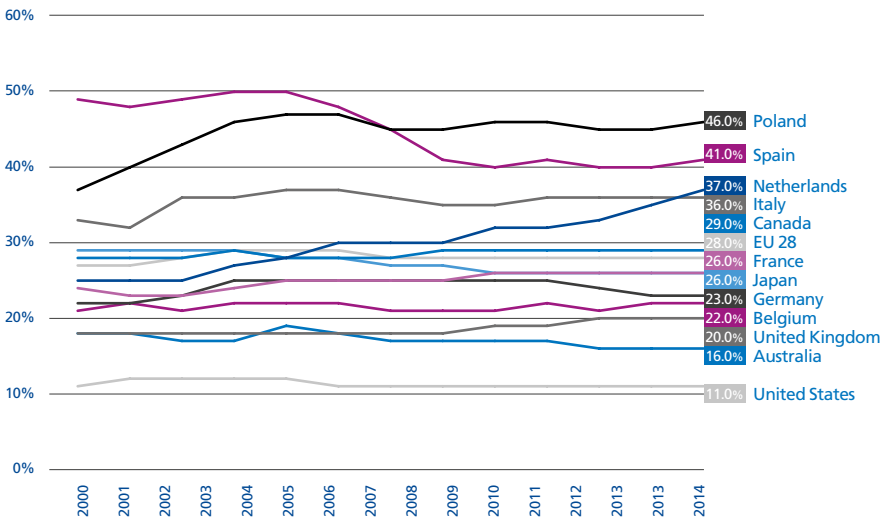
5. flexible labor relations

Flexible forms of employment

Flexible forms of employment relations enable companies to quickly adjust the size and composition of their workforce when innovations change their product lines and production methods. These flexible labor relations also enable companies to screen workers with respect to their productivity and creativity before adding them to their more permanent workforce. By using this way of matching, long-term labor relations become more efficient to the employer. If flexible labor relations are used to support innovation processes and optimize the quality of the workforce, it enables further economic growth.

Although the traditional open-ended labor contract is still the standard labor relation, many other forms of more flexible labor relations have developed over the last decades. These other forms of labor relations vary in flexibility: flexibility in the duration of the contract (fixed-term contracts), flexibility in the company people work for (e.g. triangular labor relations such as agency work), and flexibility in the labor relation (e.g. self-employed workers). For that reason, all these other types of contracts can be interpreted as flexible labor contracts as opposed to the traditional open-ended labor contract with a direct employer.

Figure 5.1 Flexible labor relations (in%)



Source: own calculations based on ILOStAT, stats.oecd and Eurostat

In Canada, Japan and most European countries, all forms of flexible labor together account for 20 to 30 percent of total employment. Particular high shares of flexible labor are found in the Mediterranean countries (more than 30 percent), in Poland (46 percent) and the Netherlands (37 percent). The Mediterranean countries have a long tradition in flexible labor, particularly through self-employed workers. Poland and the Netherlands have experienced the largest growth in flexible labor relations during the last decade for different reasons.



The lowest share of flexible labor forms is found in the United States. Only around 11 percent of employment comes in the form of some type of flexible labor. Australia, the United Kingdom and Canada also have a relatively low share of flexible labor forms. These countries traditionally have a low demand for flexible labor and a relatively low employment protection of workers, in particular those with an open-term contract against (individual) dismissal.

Growth of flexible labor relations in the last two decades can mainly be found in the Netherlands and Germany where the share of all types of flexible labor is rising. This can partly be attributed to the fairly stable economic situation in these countries, but it might also be driven by institutional factors. These include labor market reforms: the Flexibility and Security act in the Netherlands (1999), and the Hartz reforms in Germany (2003-2005). The demand for flexible labor in France and the UK is growing more slowly. The demand for fixed-term contracts is very cyclical, and in the UK, served by agency work for a relatively large part. The growth of flexible labor in these countries is mainly due to the growing share of self-employed, both before and after the 2007 crisis.



Declining shares of flexible labor are found in Scandinavia, the Mediterranean countries and in Eastern Europe. The share of self-employment is rather stable in Scandinavia. Agency work is slowly gaining market, mostly in Sweden, but the share of workers with a fixed-term contract directly with the employer is declining, mainly since the crisis. In the Mediterranean and Eastern European countries, the total share of flexible labor in employment is declining. In both regions there is a historical high share of self-employed workers, especially in agriculture and retail, but this share is declining due to societal and economical changes. At the same time, the traditional high share of workers with fixed-term contracts in the EU-Mediterranean countries is falling rapidly as well. This is mainly due to the economic crisis and the end of the construction boom in Spain. In Eastern Europe, the emerging (formal) economy compensates this effect by replacement of previously undeclared labor with formal fixed-term contracts. In both regions however, agency work is gaining ground as a new service on the labor market.

There has been some variation in the share of different types of flexible labor between 2004 and 2014 across countries, but there has not been a trade-off between different types. For example, the share of self-employment has declined in Japan, while the share of fixed-term contracts has been rather constant. The share of fixed-term contracts in the Scandinavian countries has varied during this period, while the share of self-employment has been rather constant. Germany and the Netherlands have shown relatively high growth rates in all types of flexible labor between 2004 and 2014, but they started at relatively low levels. The United States clearly has the lowest shares of flexible labor compared to Japan and Europe.



Economic growth in the coming years may increase the need for additional flexible labor when an increase in consumption is first expected to be temporary, or when more permanent workers with the right skills are not yet available. However, the additional supply of flexible labor may also enable higher economic growth through innovation, the development of new production methods and by reducing production costs. Rules and regulations that enable or restrict the use of different types of flexible contracts may play an important role in driving that process.

Figure 5.2 Flexible labor relations (in%)

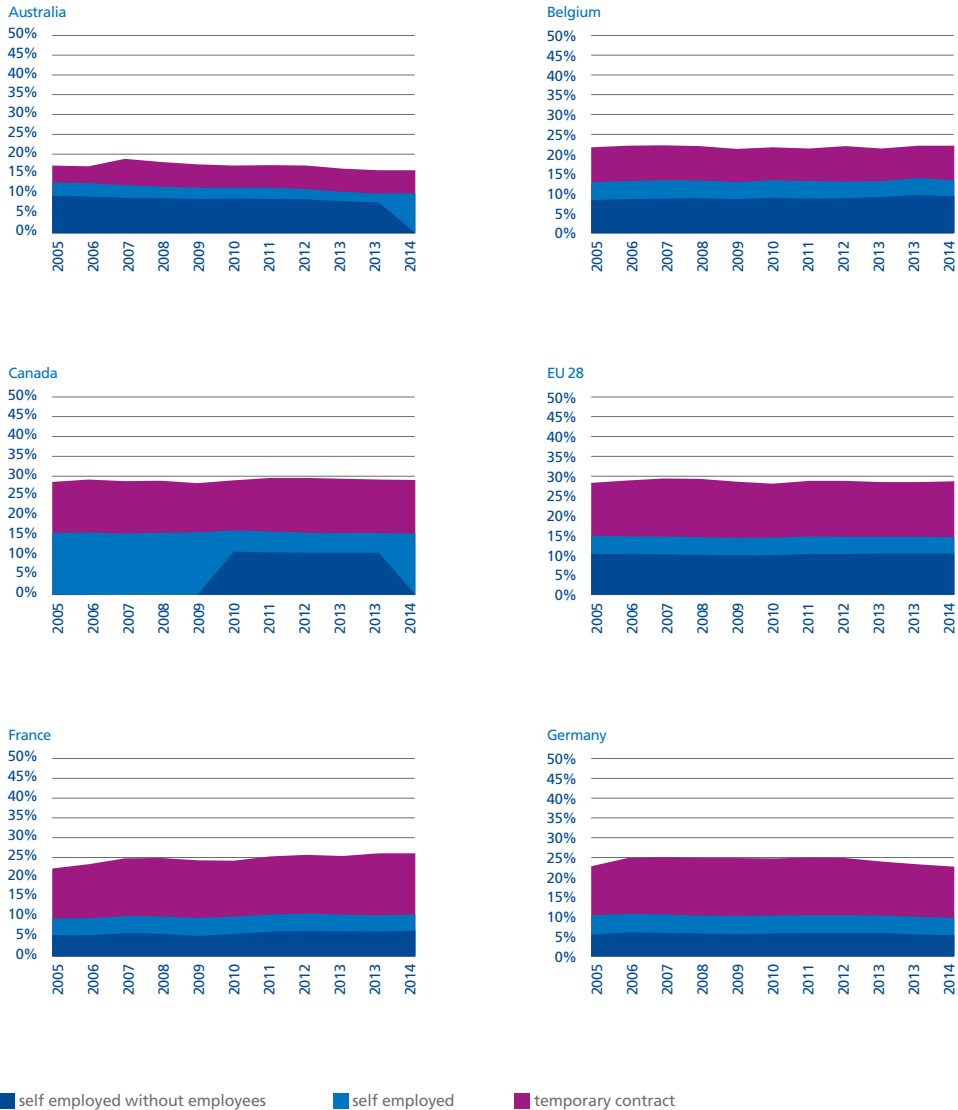
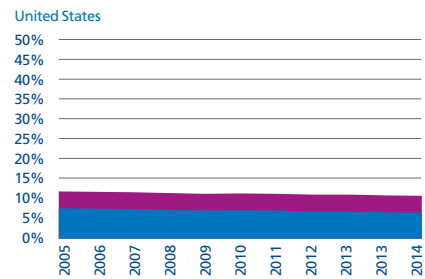
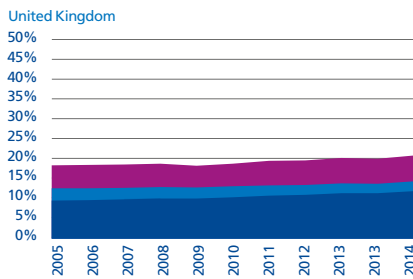
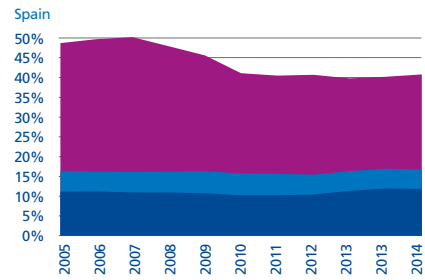
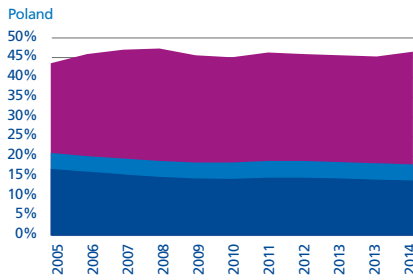
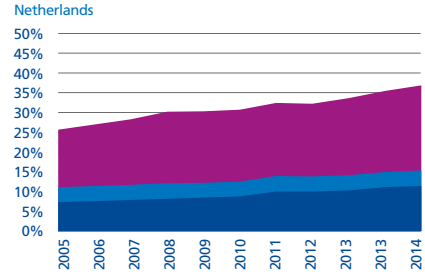
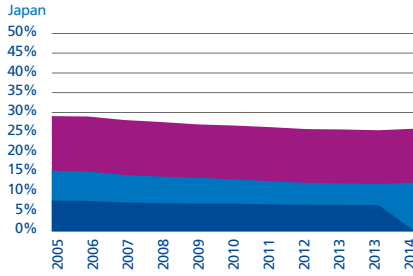


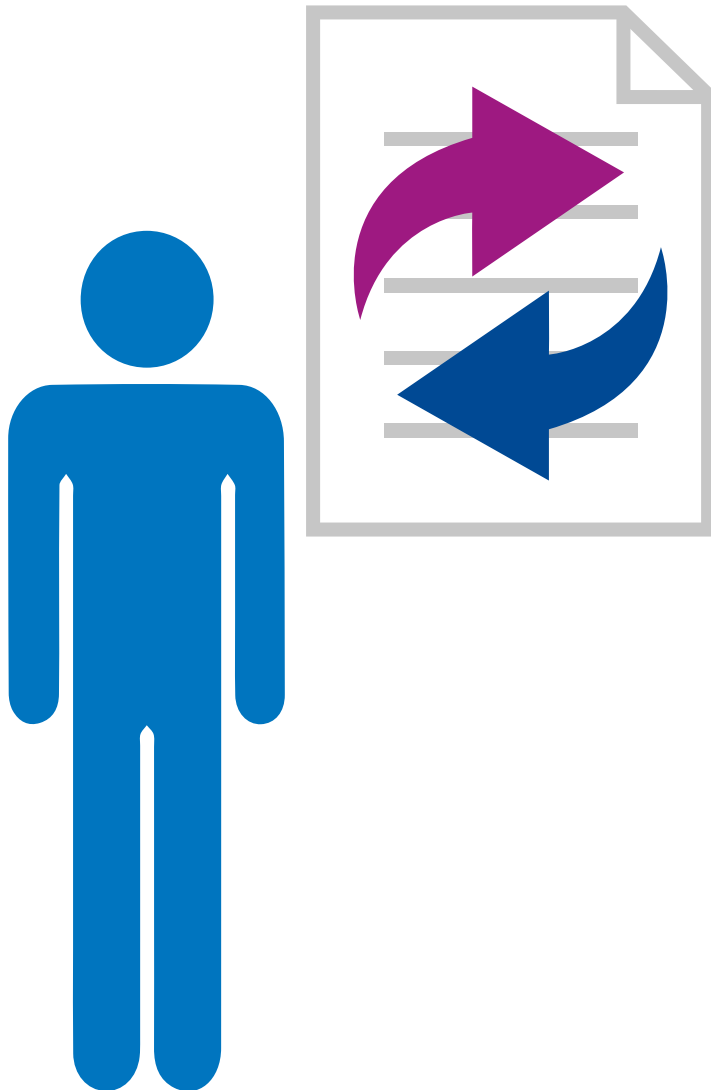
Figure 5.2 continues on page 174

Figure 5.2 Flexible labor relations (in%), continuation



■ self employed without employees ■ self employed ■ temporary contract

Source: own calculations based on ILOStAt, stats.oecd and Eurostat

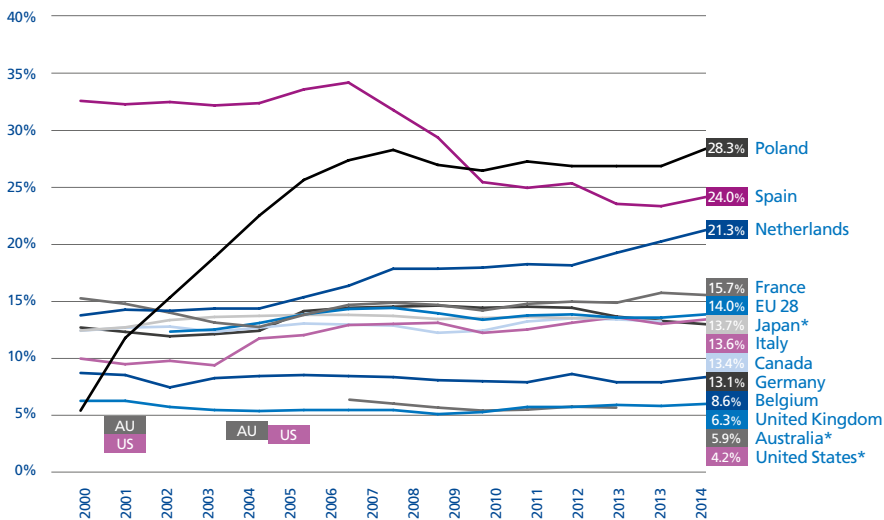


6. fixed-term contracts

In many countries temporary work has been an important driver of employment growth in the last one or two decades. Temporary contracts may facilitate job matching, by providing an initial work experience especially for youths (either during their educational period, for starters or for drop-outs) while also allowing employers to screen suitable candidates. For employers temporary jobs also offer the opportunity to adapt the size of their workforce to the economic conditions.

Currently, about half of all flexible labor consists of fixed-term contracts (the other half being self-employment). Figure 5.1 shows the incidence of temporary work in European countries during the last decade. Most western countries between 10 and 15 percent of all workers have fixed-term contracts. The United States, Australia and the United Kingdom traditionally show the lowest figures due to the less stringent employment protection on open-ended contracts. Growth in the Netherlands and Germany was driven by institutional factors, which made it easier for employers to offer fixed-term contracts.

Figure 6.1 Temporary employment incidence (age 15-64, in % of total employment)

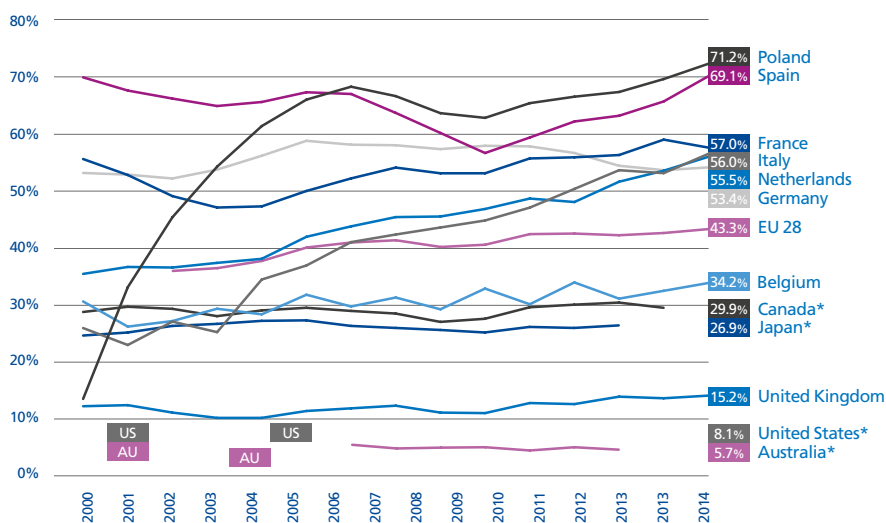


Source: Eurostat, * stats.oecd last available data

When the recent economic crisis kicked in, the share of fixed-term contracts declined in most of these countries. The crisis was assimilated by businesses through not renewing temporary contracts. As a result, the share of fixed-term contracts in total employment fell seriously in 2008 and 2009, particularly in Spain. Since the early nineties around 30% of all Spanish workers had a temporary contract, nearly all of them fixed term contracts. The share of temporary contracts dropped in 2009 as a consequence of the economic crisis, which struck the Spanish labor market more than in most other countries (and temporary workers even more). In most countries however, the share of fixed-term contracts in total employment increased again in more recent years. In Poland temporary work increased from less than 6% in 2000 to around 27% recently. Poland, as other Middle & Eastern European countries, adopted EU-regulation (directives) on fixed-term contracts before entering the EU in 2004. As a result, the share of workers with a fixed-term contracts has been around 14 percent in the EU since 2007.

Temporary work does differ by age group but not by sex. As expected, temporary work is more common among youth. Part of this effect is caused by the fact that many young people are still in education, and therefore not available for a fulltime job.

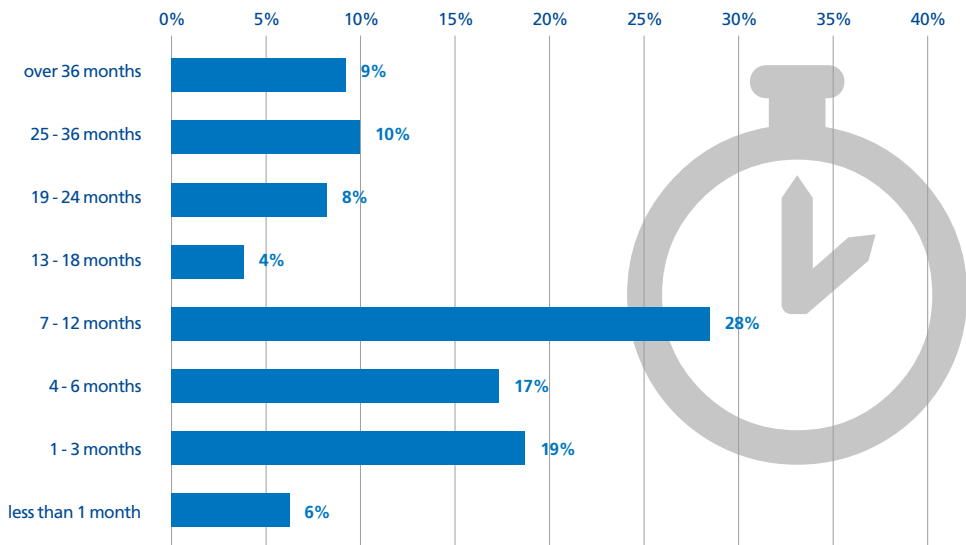
Figure 6.2 Temporary employment of youth incidence (age 15-24, in % of total employment)



Source: Eurostat, * stats.oecd last available data

Temporary contracts differ between countries in average duration. In Ireland, Scandinavia and the German-speaking countries temporary workers have longer contracts than in other countries, especially compared to France, Belgium and Spain. The average duration of a temporary contract in the EU is 17 months. However, looking at the distribution one sees that 70% of the contracts agree has a duration of less than 12 months. In fact 42% is for less than six months. There are no important differences in duration by sex or by age group.

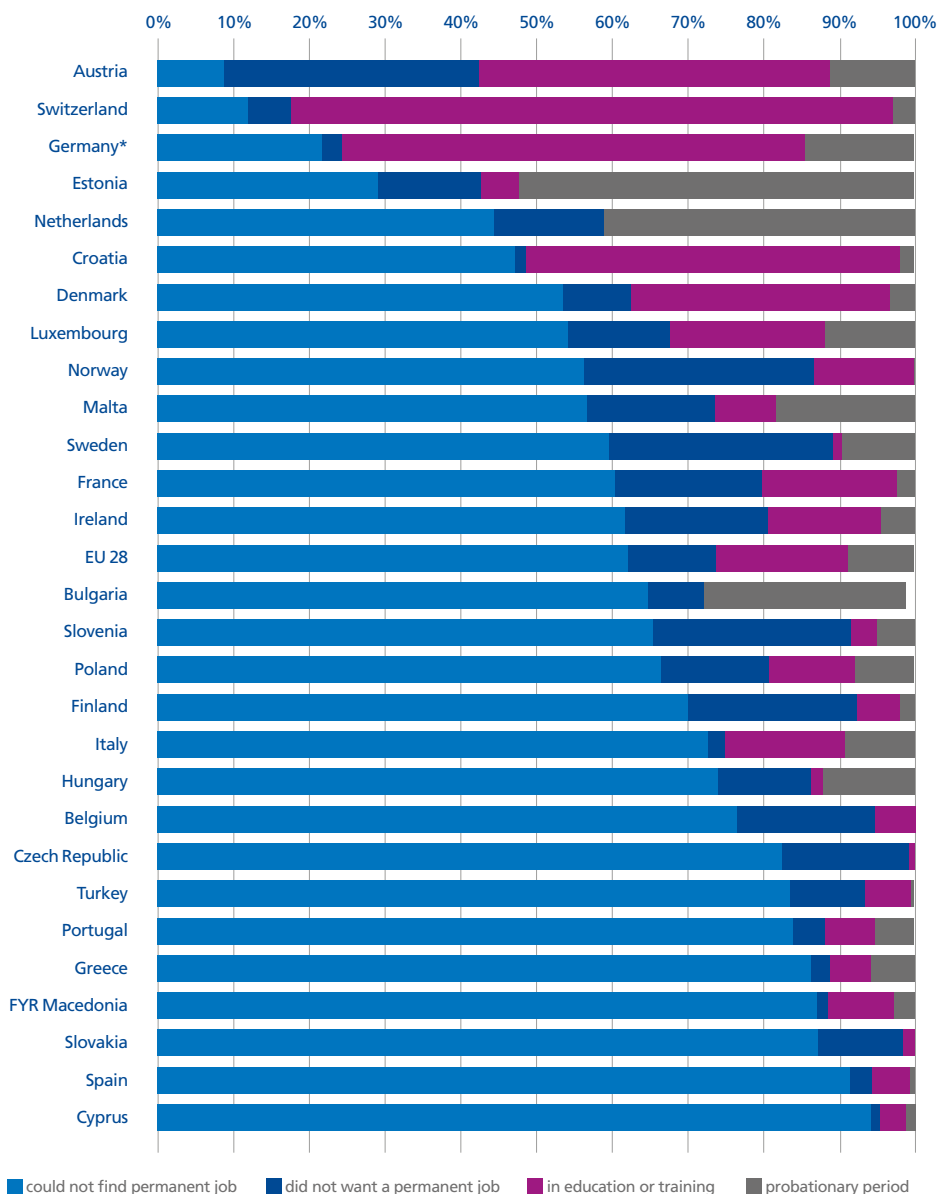
Figure 6.3 Average duration of temporary contract in the EU 28 (2014, in %)



Source: Eurostat

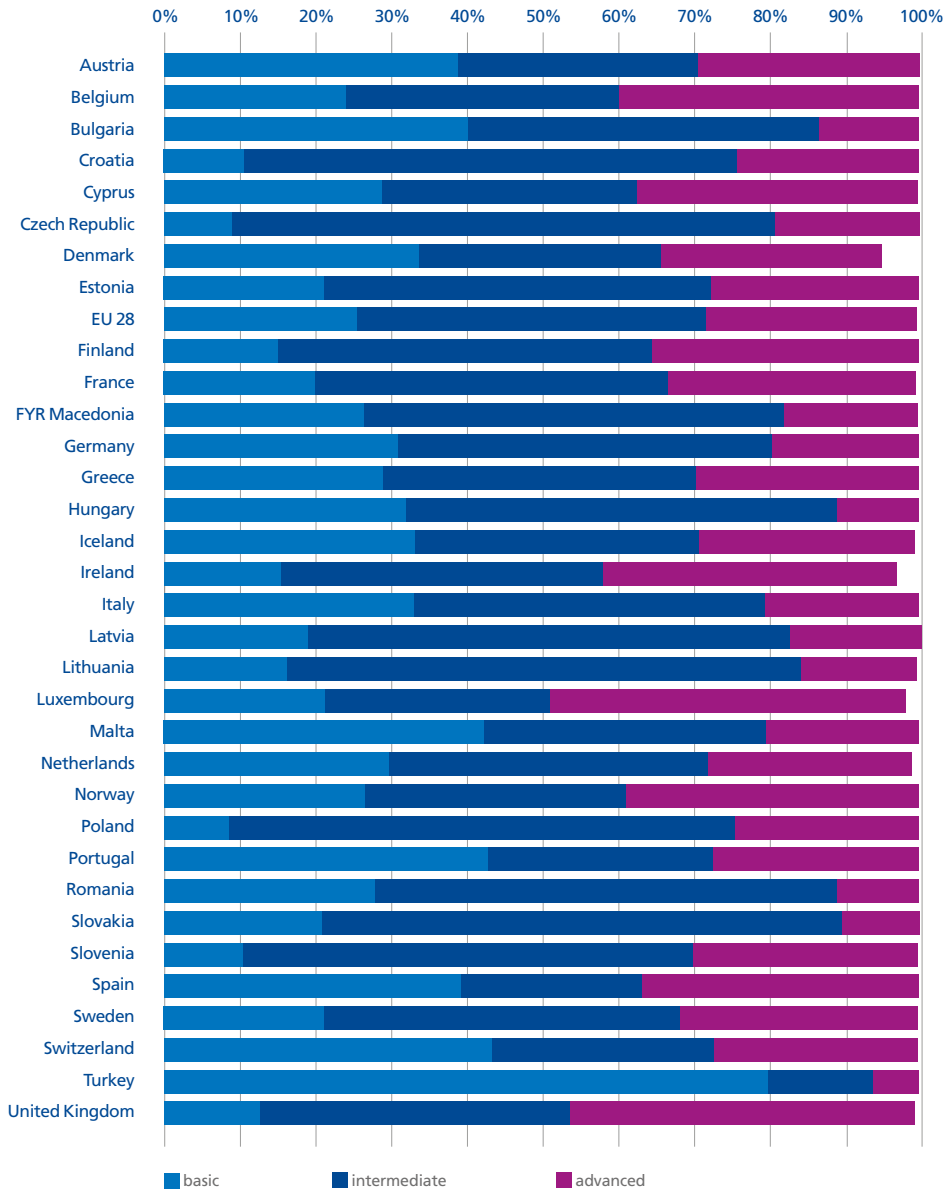
The reasons for working in a temporary job differs substantially between countries. Roughly speaking: in the German-speaking countries, Scandinavia and the Netherlands, temporary work was a voluntary choice in 2014 for the majority of temporary workers. In contrast, in Belgium and the Mediterranean countries the majority of temporary workers opt for temporary work as a second choice. Little difference exists between men and women, but there is a difference between age groups: understandably, among the youth 'education' is somewhat more important and 'couldn't find a permanent job' somewhat less important.

Figure 6.4 Main reasons for temporary employment (in %)



Source: Eurostat

Figure 6.5 Distribution of temporary employment by level of education (2014, in %)



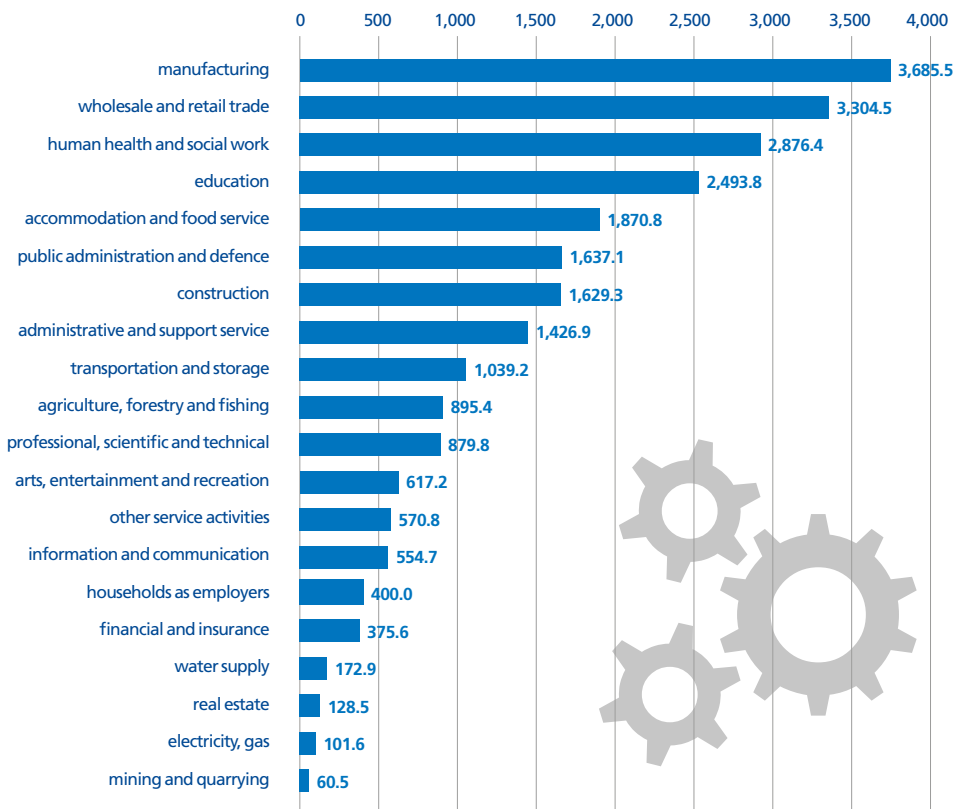
Source: Eurostat

Temporary work is not only characterized by relatively young workers, it is also characterised by overrepresentation of low-skilled workers. Two possible explanations can be thought of. Firstly, if people are still in education, their skill level is not measured correctly by 'highest successfully completed education' because they have not completed their educational track yet. Secondly, early school leavers ('drop-outs') do not get a permanent job easily because they lack certain minimum qualifications. Starting with temporary jobs is often their only option. In Spain and Portugal temporary work is not distinguished as 'typically low-skilled': high-skilled temporary work is also very common in these countries.



Figure 6.6 shows the distribution of the temporary workforce over the different sectors of the economy. There is no clear overall pattern, temporary workers can be found in different economic sectors like manufacturing, wholesale/retail/trade, health care, education, construction and business services. Manufacturing is the most important sector for temporary workers in the Czech Republic, Germany, France, Italy and Portugal. Construction is more dominant in Spain, Portugal and Greece. Furthermore, in the Netherlands, Germany, France, Sweden and the UK the health sector plays an important role in the labor market for temporary workers. At least 15% of the temporary workforce in these countries works in the health sector. In the UK many temporary workers are found in the education sector (although the overall share of temporary workers in total employment is considerably low in the UK).

Figure 6.6 Distribution of temporary employment by sectors in the EU 28 (2014, in thousands)



Source: Eurostat

Table 6.1 Temporary employment incidence (age 15-64, in % of total employment)

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Australia*	4.3		6.7	6.3	5.9	5.6	5.7	6.0	5.9		
Austria	9.5	9.0	8.9	8.8	8.9	9.1	9.4	9.6	9.3	9.2	9.2
Belgium	8.7	8.8	8.7	8.6	8.3	8.2	8.1	8.9	8.1	8.1	8.6
Bulgaria	8.0	6.3	6.1	5.1	4.9	4.6	4.4	4.0	4.4	5.6	5.3
Canada*	12.8	13.2	13.1	13.0	12.3	12.5	13.4	13.7	13.6	13.4	
Chile*	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.3	30.4	29.7	
Croatia	12.4	12.3	12.9	13.2	12.3	12.0	12.8	13.5	13.3	14.5	16.9
Cyprus	13.1	14.0	13.2	13.3	14.0	13.8	14.0	14.2	15.1	17.5	19.0
Czech Republic	8.8	7.9	8.0	7.8	7.2	7.5	8.2	8.0	8.3	9.1	9.7
Denmark	9.8	9.8	8.9	9.0	8.5	8.7	8.5	8.9	8.6	8.8	8.6
Estonia	2.9	2.7	2.6	2.2	2.4	2.4	3.7	4.5	3.5	3.5	3.1
EU 28	13.2	14.0	14.5	14.6	14.1	13.5	13.9	14.0	13.7	13.7	14.0
Finland	17.1	16.5	16.3	15.9	14.9	14.5	15.4	15.5	15.5	15.3	15.4
FYR Macedonia			11.8	12.6	14.7	15.5	16.4	14.8	14.3	15.2	15.5
France	12.8	13.9	14.8	15.0	14.8	14.3	14.9	15.1	15.0	15.9	15.7
Germany	12.5	14.3	14.6	14.7	14.8	14.6	14.7	14.6	13.8	13.4	13.1
Greece	12.5	12.0	10.8	11.0	11.6	12.3	12.6	11.8	10.2	10.2	11.6
Hungary	6.9	7.0	6.8	7.3	7.8	8.5	9.7	9.1	9.5	10.9	10.8
Iceland		7.0	11.7	12.4	9.7	9.8	12.5	12.4	13.3	14.4	13.7
Ireland	3.4	3.7	6.0	8.5	8.6	8.8	9.6	10.2	10.1	10.0	9.3
Italy	11.9	12.2	13.1	13.2	13.3	12.4	12.7	13.3	13.8	13.2	13.6
Japan*	13.9	14.0	14.0	13.9	13.6	13.7	13.8	13.7	13.7		
Korea*	25.7	27.4	25.4	24.7	23.7	26.1	23.0	23.8	23.1	22.4	
Latvia	9.6	8.7	7.2	4.2	3.4	4.3	7.1	6.7	4.7	4.3	3.3
Lithuania	6.5	5.5	4.6	3.8	2.4	2.3	2.4	2.7	2.6	2.7	2.8
Luxembourg	4.8	5.3	6.1	6.8	6.2	7.2	7.1	7.1	7.6	7.0	8.1
Malta	3.2	4.3	3.7	5.1	4.2	4.9	5.3	6.5	6.8	7.5	7.7
Mexico*	20.3										
Netherlands	14.4	15.4	16.4	17.9	17.9	18.0	18.3	18.2	19.3	20.3	21.3
Norway	10.2	9.6	10.1	9.5	9.0	8.1	8.4	8.0	8.5	8.4	7.9
Poland	22.5	25.6	27.3	28.2	26.9	26.4	27.2	26.8	26.8	26.8	28.3
Portugal	19.7	19.4	20.4	22.3	22.8	21.9	22.8	22.0	20.5	21.4	21.4
Romania	2.8	2.4	1.8	1.6	1.3	1.0	1.0	1.4	1.5	1.4	1.5
Russia*	12.0	12.2	12.5	12.3	13.9	10.5	9.1	8.3	8.5	8.5	
Slovakia	5.3	4.9	5.0	5.0	4.5	4.3	5.6	6.5	6.7	6.8	8.8
Slovenia	17.8	17.2	17.1	18.4	17.3	16.2	17.1	18.0	17.0	16.3	16.5
Spain	32.2	33.4	34.0	31.6	29.2	25.3	24.8	25.2	23.4	23.2	24.0
Sweden	15.5	15.7	17.0	17.2	15.8	14.9	16.0	16.5	15.9	16.3	16.8
Switzerland	12.2	12.8	13.5	12.9	13.2	13.3	13.1	12.9	12.9	12.9	13.1
Turkey			12.4	11.8	11.1	10.7	11.4	12.2	12.0	11.9	12.9
United Kingdom	5.6	5.7	5.7	5.7	5.3	5.5	6.0	6.0	6.2	6.1	6.3
United States*		4.2									

Source: Eurostat, *stats.oecd

Table 6.2 Temporary employment of youth incidence (age 15-24, in % of total employment)

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Australia*	3.7		6.9	6.0	6.2	6.3	5.5	6.3	5.7		
Austria	32.5	34.5	35.0	34.8	34.8	35.6	37.0	37.2	35.7	34.8	35.1
Belgium	28.6	32.1	30.0	31.6	29.5	33.2	30.4	34.3	31.4	32.8	34.2
Bulgaria	15.3	13.9	12.6	10.3	9.5	9.3	10.2	7.6	9.5	13.2	14.5
Canada*	29.4	29.9	29.3	28.8	27.2	27.8	30.0	30.5	30.9	29.9	
Chile*	47.5	47.5	47.5	47.5	47.5	47.5	47.5	45.8	46.5	45.8	
Croatia	36.9	38.0	38.4	39.9	36.5	35.0	40.0	45.8	47.9	46.6	57.2
Cyprus	16.1	19.9	21.2	23.3	20.8	18.2	20.3	17.0	18.7	26.1	31.1
Czech Republic	18.0	18.3	18.9	17.4	15.6	18.7	22.5	22.4	27.0	28.9	32.3
Denmark	26.9	26.9	22.4	22.5	23.6	22.8	21.1	22.1	20.9	20.9	21.3
Estonia		8.5	7.4	6.6	6.0	8.5	12.3	14.1	13.1	12.3	11.2
EU 28	37.6	40.0	40.9	41.3	40.1	40.5	42.4	42.5	42.2	42.6	43.3
Finland	49.8	44.1	44.2	42.4	39.6	39.0	43.0	43.4	42.0	43.0	42.5
FYR Macedonia			34.5	35.3	32.6	37.1	37.4	34.9	33.0	38.9	39.5
France	46.7	49.4	51.6	53.5	52.5	52.5	55.1	55.3	55.7	58.4	57.0
Germany	55.5	58.2	57.5	57.4	56.7	57.3	57.2	56.0	53.7	52.9	53.4
Greece	26.0	26.1	24.7	26.5	28.8	28.2	30.2	29.7	25.4	26.4	29.4
Hungary	15.1	17.2	17.1	18.9	19.7	21.3	25.0	23.3	22.7	24.7	25.1
Iceland		14.1	30.4	31.9	27.9	26.7	31.4	32.9	32.9	33.7	31.4
Ireland	11.2	11.6	15.1	21.2	22.0	24.6	30.1	33.8	34.9	33.1	33.9
Italy	34.5	36.9	40.9	42.2	43.4	44.6	46.8	50.0	53.2	52.7	56.0
Japan*	27.8	27.9	26.8	26.4	26.0	25.5	26.6	26.4	26.9		
Korea*	30.3	34.6	31.7	30.0	29.4	32.5	30.1	27.3	27.3	27.5	
Latvia	18.5	17.8	13.8	9.0	7.2	8.8	13.3	11.2	9.7	10.0	8.4
Lithuania	14.1	13.1	11.2	10.5	7.2	5.3	7.6	8.8	9.4	8.0	8.5
Luxembourg	24.1	29.3	33.2	34.1	39.3	39.3	36.5	34.5	39.0	30.9	45.4
Malta	9.2	10.8	8.0	11.1	9.1	12.2	13.9	17.6	17.0	19.8	19.0
Mexico*	26.4										
Netherlands	37.9	41.7	43.5	45.1	45.2	46.5	48.3	47.7	51.2	53.1	55.5
Norway	31.2	28.2	29.4	28.0	26.2	25.7	27.1	24.3	24.4	24.2	24.0
Poland	60.6	65.1	67.3	65.7	62.8	62.0	64.5	65.6	66.4	68.6	71.2
Portugal	47.6	46.2	49.7	53.1	54.6	54.1	56.4	57.8	56.7	61.5	63.0
Romania	6.6	7.1	5.0	4.6	4.3	3.7	3.6	5.4	5.3	6.1	7.0
Russia*	23.6	24.6	24.5	23.1	24.2	21.3	18.7	17.1	17.3	16.9	
Slovakia	9.9	12.6	14.2	13.7	12.6	12.5	17.1	18.7	19.1	21.3	28.2
Slovenia	63.1	62.5	64.2	68.3	69.8	66.6	69.6	74.5	72.0	73.6	72.7
Spain	64.6	66.3	66.0	62.7	59.2	55.7	58.4	61.2	62.2	64.7	69.1
Sweden	53.1	55.4	59.0	57.1	53.6	53.4	56.7	56.8	55.7	55.8	56.2
Switzerland	46.9	49.6	51.4	50.3	50.6	53.1	51.6	51.5	52.5	51.8	52.6
Turkey			13.5	12.4	12.5	15.0	17.2	18.3	19.3	19.8	21.7
United Kingdom	11.0	12.3	12.8	13.3	12.0	11.9	13.8	13.6	15.0	14.7	15.2
United States*		8.1									

Source: Eurostat, *stats.oecd

Table 6.3 Distribution of temporary employment (2014, in %)

	Gender		Age			Education		
	Males	Females	From 15 to 24 years	From 25 to 49 years	From 50 to 64 years	Basic	Intermediate	Advanced
Austria	51.4	48.6	52.7	40.2	7.1	38.9	31.8	29.4
Belgium	45.4	54.6	29.6	60.0	10.4	24.0	36.2	39.8
Bulgaria	54.7	45.3	15.3	59.5	25.1	40.2	46.6	13.2
Croatia	51.8	48.2	21.6	66.3	12.1	10.6	65.2	24.2
Cyprus	32.7	67.3	13.6	75.4	11.0	28.8	33.8	37.3
Czech Republic	46.6	53.4	23.0	58.7	18.2	9.0	71.9	19.2
Denmark	48.5	51.5	39.0	49.5	11.6	33.7	32.1	29.3
Estonia	52.4	47.6	31.2	52.4	17.1	21.2	51.2	27.6
EU 28	50.2	49.8	29.0	58.1	12.9	25.5	46.3	27.9
Finland	39.0	61.0	33.6	52.7	13.8	15.1	49.5	35.4
France	47.0	53.0	32.0	54.3	13.8	20.0	46.7	32.9
FYR Macedonia	63.6	36.4	14.8	72.7	12.4	26.4	55.7	17.7
Germany	51.6	48.4	44.5	46.2	9.3	30.9	49.6	19.4
Greece	51.5	48.5	11.8	75.7	12.5	29.0	41.4	29.6
Hungary	54.6	45.4	16.3	61.3	22.4	32.0	57.1	10.9
Iceland	50.3	49.7	42.2	44.7	13.1	33.2	37.7	28.6
Ireland	48.5	51.5	33.4	53.4	13.3	15.4	42.7	39.0
Italy	52.7	47.3	19.2	67.4	13.4	33.1	46.5	20.4
Latvia	62.3	37.7	21.4	50.4	28.2	19.0	63.9	17.5
Lithuania	62.4	37.6	27.1	47.1	25.8	16.2	68.2	15.3
Luxembourg	48.3	51.7	28.7	60.7	10.7	21.3	29.8	47.2
Malta	50.0	50.0	39.0	44.9	16.1	42.4	37.3	20.3
Netherlands	49.4	50.6	44.4	46.7	8.9	29.7	42.3	27.0
Norway	39.6	60.4	41.1	50.2	8.7	26.6	34.6	38.8
Poland	53.6	46.4	20.0	65.0	15.0	8.6	67.0	24.4
Portugal	49.2	50.8	19.0	68.5	12.5	42.8	29.8	27.4
Romania	65.7	34.3	22.5	66.8	10.8	27.9	61.2	10.9
Slovakia	54.1	45.9	22.0	59.1	18.9	20.9	68.9	10.3
Slovenia	51.3	48.7	26.2	63.5	10.3	10.4	59.6	29.9
Spain	50.8	49.2	13.7	74.2	12.1	39.3	24.0	36.6
Sweden	43.9	56.1	40.4	47.9	11.6	21.2	47.1	31.5
Switzerland	51.8	48.2	58.5	34.2	7.4	43.4	29.5	27.0
Turkey	76.6	23.4	29.6	58.0	12.3	79.9	14.0	6.1
United Kingdom	46.7	53.3	33.7	47.1	19.2	12.6	41.0	45.6

Source: Eurostat

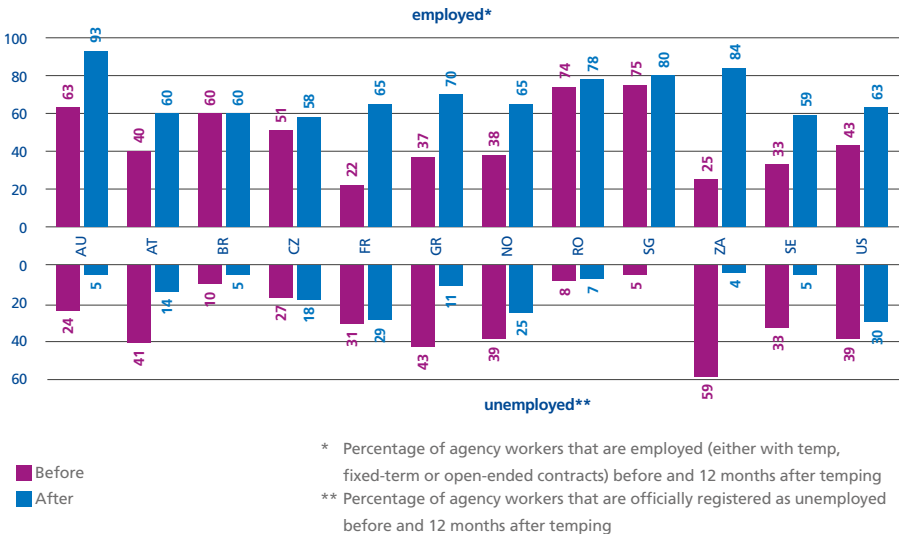


7. agency work

With agency work, the employer does not hire an employee directly on a fixed-term contract, but through a private employment agency. Typically the employee is hired directly by the employment agency, mostly on a fixed-term basis but occasionally on an open-ended contract. During the contract period, the employee can be assigned to different user companies. After the contract expires, a renewed contract with the employment agency is one of the possibilities, but also a contract with one of the user companies.

People coming out of unemployment and who start doing agency work don't often return to unemployment after their assignment¹. Although there are significant differences between the countries, all show that agency work is a stepping stone out of unemployment and into work. In Brazil for example, 85% of agency workers comes out of unemployment, and only 30% of them returns to unemployment after their agency work assignment. Clearly, people use the experience and skills they obtain while working as an agency worker to make their next move on the labor market. People who start working as an agency worker can do so from employment or unemployment, as well as from education or inactivity. Through agency work, they not only have a good point of entry onto the labor market, they are also able to stay in employment after their agency work assignment has ended.

Figure 7.1 Employed and unemployed before and after agency work (in %)



Source: Ciett economic report 2015

¹ 'The Role of Temporary Agency Work and Labour Market Transitions in Europe' (Eurociett/UNI Europe, 2013) and 'How temporary agency work compares with other forms of work' (IDEA consult, 2015)

In many countries agency workers receive formal training, either directly through the agency, or through bipartite funds set up by the agencies and the trade unions. This ensures that agency workers have opportunities to keep developing themselves in order to take another step on the labor market. Being close to the labor market, employment and recruitment agencies are perfectly suited to advise workers on the type of training to follow in order to enhance their employability. A total of almost 1.5 million agency workers is trained annually in 14 of the countries surveyed, while an amount of € 1.676 million is spent on training each year.

Nearly 90% of agency workers in the US report that agency work (staffing) made them more employable. Agency work is a sought-after way to gain skills and work experience. Nearly 90% of employees reported that their staffing employment experience made them more employable. For example by improving their work skills, strengthening their resume or receiving on-the-job experience. This adds to the argument that agency work offers a stepping stone towards more opportunities on the labor market.

Agency work gives employers the opportunity to adapt the size of their workforce to economic conditions while at the same time facilitating job matching by providing initial work experience. This is particularly true for younger people, either during their educational period or when starting on the labor market. This also holds true for the unemployed in finding their way back to the labor market. 'The Role of Temporary Agency Work and Labor Market Transitions in Europe'² report by Eurociett and UNI Europe demonstrates the positive role agency work plays in facilitating these transitions in the labor market.

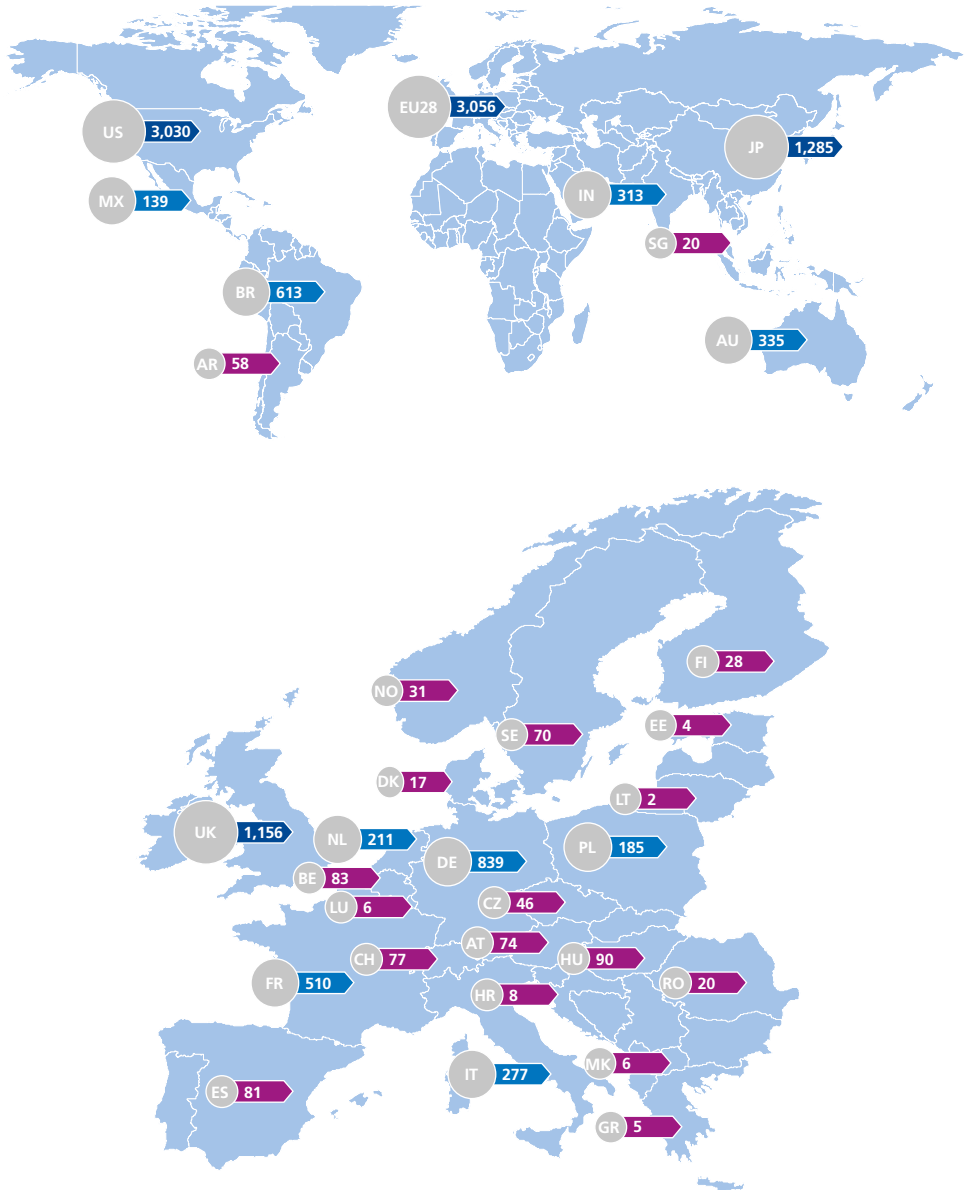
The trend is upwards

An increase of nearly 10% can be seen in 2013 compared to 2012 in agency work. From just over 36 million people in 2012 to just over 40 million people in 2013 were employed as agency workers at some point during the year. In Europe, the total number of individuals went from 7.9 million to 8.7 million people. The biggest market for agency work is still the USA with 11 million people. China follows closely behind with 10.8 million people, although the nature of agency work in China is not fully comparable to that in other countries. Based on 2012 data, Japan is the third biggest market with 2.4 million individuals. On average, about 12 million people were employed on a daily basis as agency worker in 2013 on a global level. Big increases could be seen in Japan, Italy, Romania, Norway and Poland. On the other hand, the Netherlands, Austria and Germany saw declining numbers.

² 'The Role of Temporary Agency Work and Labour Market Transitions in Europe' (Eurociett/UNI Europe, 2013)



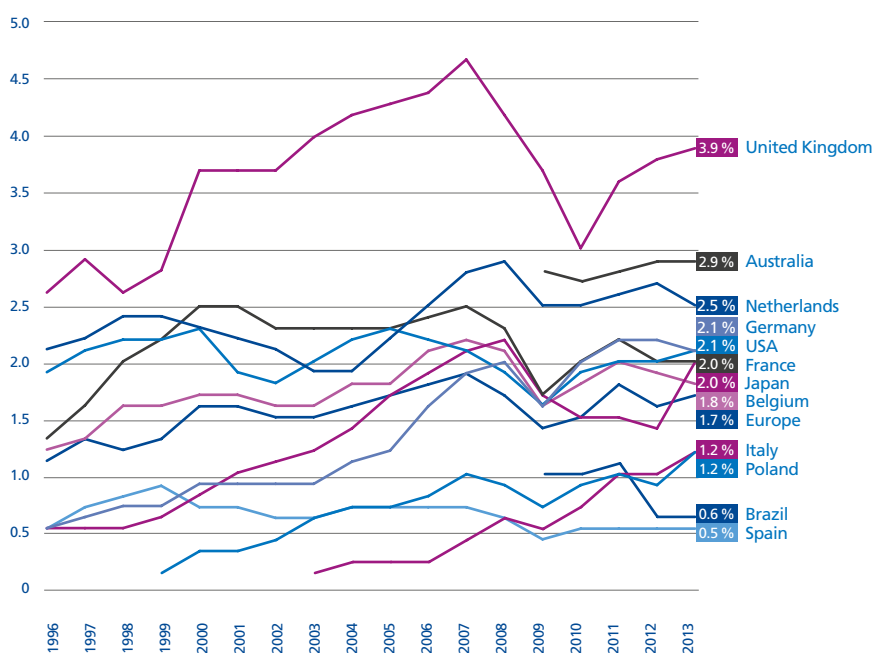
Figure 7.2 Daily average number of agency workers (2013, in thousands)



Source: Ciett economic report 2015

The penetration rate for flexible labor is the number of agency workers as a share of the total working population. The USA, Japan and Europe saw an increase in their penetration rates in 2013, bringing them closer together: 1.7, 2.0 and 2.1 percent for Europe, Japan and the USA respectively. In the USA this is the continuation of a positive trend that started in 2009, whereas both Europe and Japan saw a deterioration in 2012 that has now been reversed. While the USA and Europe have returned to the same penetration rate as that of 2007 before the economic crisis started, Japan is slightly below its 2008 penetration rate of 2.2 percent, which was a record high. The global average is slightly lower at 1.6 percent, as it includes many markets that are less mature than these three.

Figure 7.3 Penetration rates agency work (in %)



Source: Ciett economic report 2015



Agency work accounts for a relatively small but important part of total employment. It has a long tradition in the United States, with a long-term share in total employment of around 2 percent. In South-America, agency work is a relatively small phenomenon, which has reached shares of around 0.5 to 1 percent of total employment. In Japan, agency work has become more popular since 2000, with the current share at around 1.5 to 2 percent, while in South Korea the share of agency work is increasing slowly from 0.2 to 0.5 percent. In Europe, agency work has the highest employment share in the United Kingdom, followed traditionally by the Benelux countries and France, where agency work has been well-established for four to five decades now. In Germany, agency work has become much more popular over the last decade following the Hartz reforms, which altered labor regulation.

Agency work helps accelerate out of the downturn

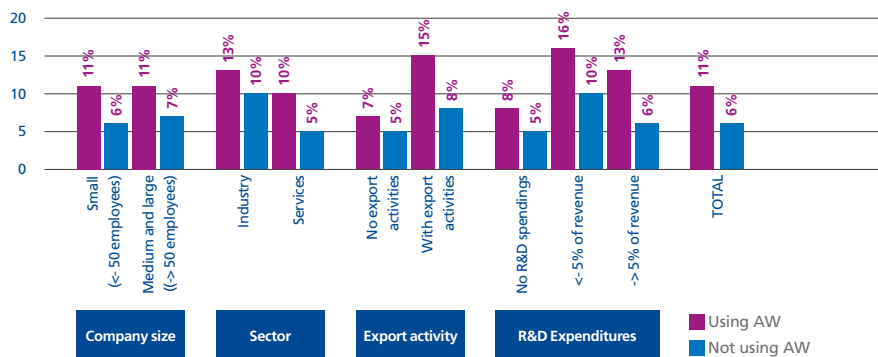
Agency work is the first form of employment affected by a decline in labor demand in an economic crisis, particularly if agency workers are younger and lower educated. But at the same time, agency work will be the first type of employment offered when the economy stabilizes after a crisis.

The opportunity to offer agency work may even accelerate economic growth³. Therefore, further growth in agency work can be expected once the economies in most Western countries start to grow substantially again. Agency work, though forming only a small part of all flexible employment, has shown structural growth beyond the regular business cycle.

³ Adapting to change (CIETT, BCG, 2012)

The role of shock absorber is bigger when agency work is used for the lower segments of the labor market. In general, jobs of higher educated, older and more experienced workers depend less on economic circumstances. On average, agency workers are relatively young. In most countries the majority has not reached the age of 30. The most important exceptions are the United States and Denmark, where the age distribution of agency workers is more symmetric: a third is younger than age 30, a third is between 30 and 45 years of age, and a third is older than 45 years. Sweden, Japan and Germany also have relatively 'older' populations of agency workers, with nearly 60 percent over 30 years of age. The United States, Denmark, Sweden and Germany are also countries where the share of agency workers has been less affected by fluctuations in economic growth.

Figure 7.4 Companies using agency work accelerate faster out of downturn



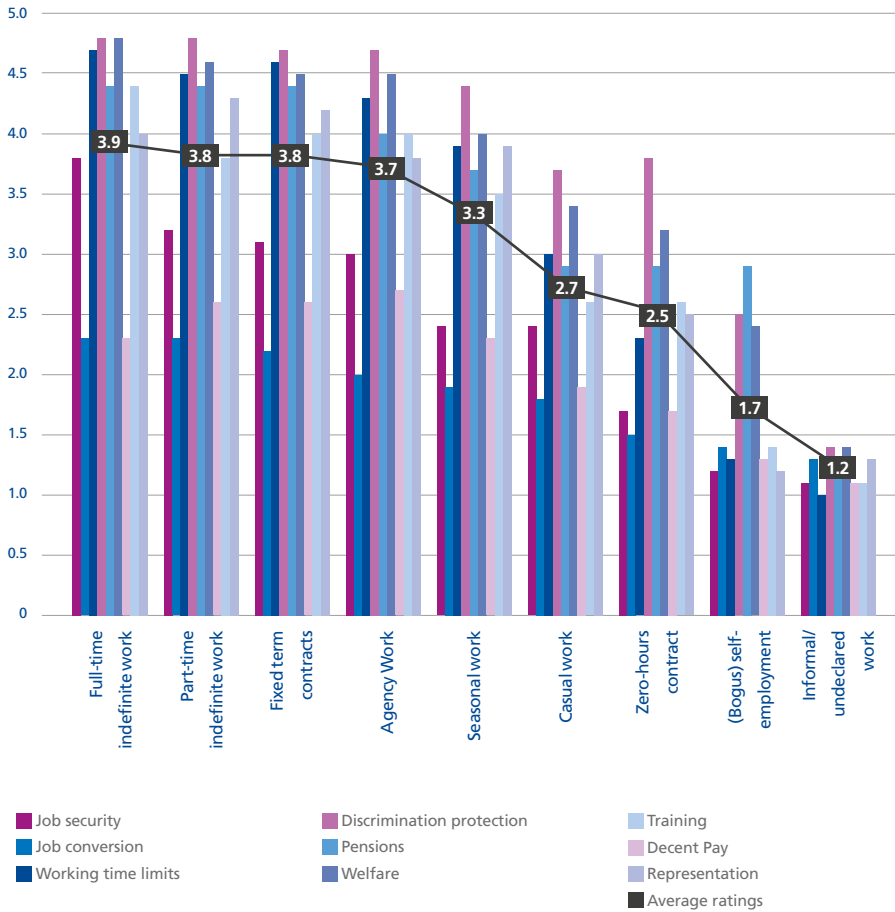
Source: Adapting to change (Ciett/BCG, 2012)



Agency work ranks high on job quality

Fulltime open-ended contracts, part-time open-ended contracts, direct fixed term contracts and agency work are all comparable in terms of overall job quality. Informal work and bogus or false self-employment are the forms of work that offer the worst job quality. Agency work, being a well-regulated form of work in most countries, offers quality employment, especially in terms of access to welfare and pension, working time limits, discrimination protection and job security.

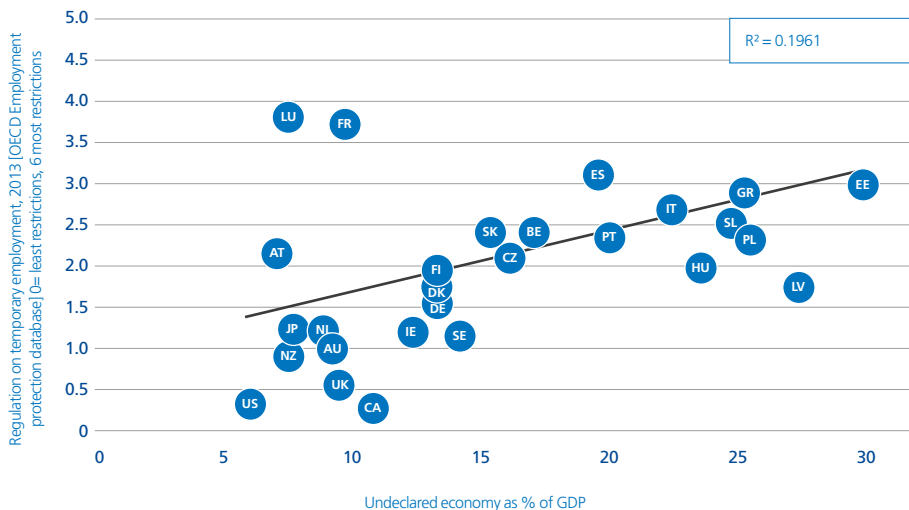
Figure 7.5 Comparing job quality of different employment relations (0 = lowest, 5 = highest)



Source: Study on precarious work and social rights, carried out for the European Commission. London Metropolitan University

The Randstad/SEO study 'Flexibility@work 2014, tackling undeclared work' showed that a direct relation can be seen between the level of regulation on agency work and the incidence of undeclared work. More restrictive regulation on agency work is often seen to push companies and workers towards other forms of flexible labor including undeclared work. The study revealed that economies making it easier for businesses to turn to temporary employment and agency work to meet their flexible labor demands, the demand for undeclared labor diminishes.

Figure 7.6 Relation between the strictness of regulation of temporary contracts and the size of undeclared work



Source: Flexibility@work 2014 (Randstad/Regioplan/University of Sheffield)



Who are the agency workers?

In most countries, the majority of agency workers is under 30 years old (66% globally). Only 1% of workers is over 30 in India. In South Africa it's only 9% and in China 23%. In these countries, it is clear that agency work is an excellent stepping stone onto the labor market for young people. On average, more mature markets such as Japan, the USA, Italy, France and Germany have more older workers. In these countries, agency work is generally considered to be a good and viable alternative to other types of employment and is seen as providing a stepping stone to the labor market from any situation. The difference between age profiles also correlates with different motivations people have to work as an agency worker: from earning some money during studies (many young agency workers are students) to young parents working part time, or specialized professionals looking for the best place to market their skills.

Gender balance among agency workers depends on many aspects, such as the socio-economic fabric of society or the economic history or tradition. In some countries, agency work is mostly done by women who might leave the labor market once they start families, or by mothers who want to take care of their family as well as a flexible job. Typically, countries where agency workers are mostly employed in the services sector tend to have more female agency workers, while countries where agency work is used more in the construction or manufacturing sectors have more male agency workers.



On average, 26% of agency workers completed higher education. There are significant differences between countries though, with some markets mostly based on higher educated workers, and some mostly on typical blue collar work. The reason that India has the highest number of highly educated workers by far, is most likely due to the fact that lower skilled labor in India is often still informal work.

In most countries, agency workers primarily work either in services (on average 37%) and manufacturing (32%). Australia, France and Norway stand out with a relative high percentage of people in construction. A large part of agency work takes place in manufacturing in many Central and Eastern European countries. Agriculture is among the main sectors for agency workers in Spain, while Australia and Brazil also have above average numbers of agency workers in this sector.

About half of all agency workers is employed by companies with fewer than 100 employees, the other half by companies with over 100 employees. Companies with less than 10 employees hire approximately 9% of all agency workers. Although significant differences exist between countries, this does show that agency work offers an effective way to manage part of the workforce for companies of all sizes.

Table 7.1 Penetration rates agency work (in %)

World	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Argentina							0.3	0.4	0.4		0.4
Australia							2.8	2.7	2.8	2.9	2.9
Austria	1.0	1.2	1.2	1.5	1.7	1.7	1.4	1.6	1.8	1.9	1.8
Belgium	1.6	1.8	1.8	2.1	2.2	2.1	1.6	1.8	2.0	1.9	1.8
Brazil							1.0	1.0	1.1	0.6	0.6
Bulgaria						0.1	0.2	0.3		0.3	
Canada								0.6	0.6		
Chile							0.4	0.5	0.3		
China										3.5	
Colombia							3.3	2.9			
Croatia										0.3	0.6
Czech Republic						0.7	0.7	0.7	0.7	0.9	0.9
Denmark	0.4	0.5	0.6	0.7	0.7	0.8	0.5	0.5	0.5	0.5	0.6
Estonia								0.5	0.6	0.6	0.6
Europe	1.5	1.6	1.7	1.8	1.9	1.7	1.4	1.5	1.8	1.6	1.7
Finland	0.5	0.6	0.7	0.7	1.1	1.3	0.8	0.9	1.3	1.2	1.1
France	2.3	2.3	2.3	2.4	2.5	2.3	1.7	2.0	2.2	2.0	2.0
Germany	0.9	1.1	1.2	1.6	1.9	2.0	1.6	2.0	2.2	2.2	2.1
Greece					0.2		0.1	0.1	0.1	0.2	0.2
Hungary	1.0	1.4	1.4	1.4	1.4	1.4	0.6	1.8			2.3



(2) World	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
India									0.3	0.1	
Ireland	1.4	1.4	1.3	1.5	1.7	1.7	0.9	1.9	2.5	1.4	
Italy	0.6	0.7	0.7	0.8	1.0	0.9	0.7	0.9	1.0	0.9	1.2
Japan	1.2	1.4	1.7	1.9	2.1	2.2	1.7	1.5	1.5	1.4	2.0
Korea							0.4	0.4	0.5		
Latvia								0.3	0.4		
Lithuania								0.2	0.1	0.2	0.2
Luxembourg	2.1	2.1	2.1	2.6	2.5	2.0	1.8	1.9	0.0	2.4	2.5
Macedonia				0.4	0.3	0.3	0.8	0.8	0.8		0.9
Mexico							0.1	0.1	0.3	0.3	0.3
Netherlands	1.9	1.9	2.2	2.5	2.8	2.9	2.5	2.5	2.6	2.7	2.5
New Zealand							0.6	0.3	0.3	0.4	
Norway	0.4	0.5	0.7	1.0	1.0	1.0	0.8	0.9	0.9	1.0	1.2
Peru							0.3	0.6			
Poland	0.1	0.2	0.2	0.2	0.4	0.6	0.5	0.7	1.0	1.0	1.2
Portugal	0.9	0.9	0.9	0.9	0.9	1.6	1.6	1.8	1.7		
Romania						0.3	0.2	0.5		0.2	0.2
Russia							0.1	0.1	0.1	0.1	
Singapore											1.0
Slovakia						0.6	0.6	0.8			
Slovenia						0.2	0.2	0.5			
South Africa							6.4	7.2	7.2	9.2	
Spain	0.6	0.7	0.7	0.7	0.7	0.6	0.4	0.5	0.5	0.5	0.5
Sweden	0.7	0.7	0.7	0.8	1.3	1.3	1.0	1.3	1.4	1.3	1.5
Switzerland	0.9	1.0	1.2	1.5	1.7	1.6	1.3	1.5	1.7	1.7	1.7
Turkey										0.1	
UK	4.0	4.2	4.3	4.4	4.7	4.2	3.7	3.0	3.6	3.8	3.9
Uruguay								1.0			
USA	2.0	2.2	2.3	2.2	2.1	1.9	1.6	1.9	2.0	2.0	2.1

Source: Ciett

Table 7.2 Total daily average number of agency workers (in full-time equivalents, in thousands)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Argentina	41	61	66	73	75	76	58	63	69		58
Australia							293	308	321	327	335
Austria	38	44	47	59	67	68	57	66	75	78	74
Belgium	66	73	78	88	95	92	72	82	90	85	83
Brazil				800	859	876	902	965	1,023	592	613
Bulgaria						5	5	8		10	
Canada								98			

(2)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Chile				86	33	30	29	32			
China										27,000	
Colombia							550	530			
Croatia										4	8
Czech Republic						35	36	32	35	45	46
Denmark	11	13	17	21	21	22	14	13	14	15	17
Estonia								3	4	4	4
EU 28	2,096	2,105	2,110	2,980	2,994	3,011	3,860	3,938	3,448	3,588	3,056
Finland	12	14	16	18	28	32	20	22	31	29	28
France	555	570	5W86	603	638	604	447	520	576	525	510
Germany	330	385	444	580	715	761	625	781	882	878	839
Greece					8	2	5	5	5	7	5
Hungary	39	53	54	55	55	55	22	68			90
India									1,300	500	313
Ireland	25	25	25	30	35	35	18	35	46	26	
Italy	132	154	157	184	222	222	162	197	225	207	277
Japan	743	890	1,060	1,220	1,330	1,400	1,098	960	930	900	1,285
Korea		50	57	66	75	78	84	91	107		
Latvia								3	4	0	
Lithuania								2	2	2	2
Luxembourg	4	4	4	5	5	4	4	4		6	6
Macedonia				2	2	2	5	5	5		6
Mexico							24	26	131	137	139
Netherlands	154	157	178	210	241	249	213	208	219	227	211
New Zealand			10	10	9	10	9	8	8	8	
Norway	10	12	15	24	25	26	20	22	23	25	31
Peru							43	85			
Poland	19	25	27	35	60	90	72	114	161	160	185
Portugal	45	45	45	45	45	85	80	87	80		
Romania						30	22	50		16	20
Russia							57	62	70	92	
Singapore											20
Slovakia						14	14	19			
Slovenia						2	2	5			
South Africa			300	300	300	500	924	967	1,004	1,220	
Spain	106	122	132	144	150	126	82	87	87	79	81
Sweden	29	30	32	37	59	59	46	60	65	61	70
Switzerland	36	41	49	61	70	69	57	66	73	73	77
Turkey											20
UK	1,111	1,175	1,219	1,265	1,378	1,220	1,068	880	1,049	1,129	1,156
USA	2,758	3,028	3,214	3,194	3,116	2,807	2,183	2,584	2,800	2,910	3,030

Source: Ciett



Table 7.3 Gender and age agency workers (2013, in %)

	Gender		Age group				
	Male	Female	< 21	21 - 25	26 - 30	31 - 45	> 45
Argentina	73	27	8	31	30	26	4
Australia	55	45					
Austria	79	21	22	32	22	24	
Belgium	60	40	8	28	18	32	15
Brazil	45	55	30	25	20	15	10
China			13	29	35	17	6
Colombia			9	24	32	34	11
Croatia	55	45					
Czech Republic	50	50	5	26	27	35	7
Denmark	50	40					
Estonia	45	55	10	20	30	30	10
Finland	34	66	44		33	11	12
France	73	27	3	22	20	37	19
Germany	70	30	4	33		26	37
Greece	46	54	4	26	26	35	10
Hungary	43	57	25		63		13
India	97	3	74	20	5	1	
Italy	55	45	22		21	42	15
Japan	59	41	9		28	29	34
Lithuania	54	46					
Luxembourg	79	21	4	16	16	43	21
Macedonia	58	42	3	23	20	33	21
Mexico	44	56	6	29	27	30	8
Netherlands	59	41	43		25	14	18
New Zealand	45	55	5	15	25	35	20
Norway	47	53					
Poland	54	46	45		48		8
Romania	54	46	3	26	26	36	9
Singapore	65	35					
South Africa	51	49	13	39	39	9	
Spain	60	40	9	17	36	29	9
Sweden	50	50	11	20	15	32	22
Switzerland	75	25					
UK	44	55	28		19	19	35
USA	42	58	4	13	16	32	35

Source: Ciett

Table 7.4 Level of education and average duration of assignment agency workers (2013, in %)

	Gender			Age group		
	Basic	Intermediate	Advanced	Short-term [< 1 month]	Medium-term [1 – 3 months]	Long-term [3 months]
Argentina	33	61	6			
Australia	7	45	48	25	39	36
Austria		76	24	19	20	61
Belgium	25	48	27			
Brazil	15	70	15	30	40	30
Bulgaria	25	50	25	25	25	50
China	20	40	40			100
Croatia	5	80	15	15	30	55
Czech Republic	45	50	5	18	60	22
Estonia	10	60	30	10	20	70
Finland	8	46	16			
Germany	29	49	3	2	9	89
Greece	14	50	36	17	34	49
Hungary	24	68	8	10	10	80
India	11	21	68	5	10	85
Italy				20	50	30
Japan				53	36	11
Luxembourg	40	45	15	83	12	5
Macedonia	42	44	14	36	61	3
Mexico	18	36	46	13	32	55
Netherlands	31	49	20			
New Zealand	15	70	15	40	30	30
Norway	5	43	52			
Romania	9	55	37	11	32	56
Singapore	20	50	30	10	30	60
South Africa	3	92	5	15	26	59
Spain	48	44	8	73	19	8
Sweden	5	48	45			
UK				31	20	49
USA	2	60	38	19	24	57
Spain	60	40	40	9	17	36
Sweden	50	50	50	11	20	15
Switzerland	75	25	25			
UK	44	55	55	28		19
USA	42	58	58	4	13	16

Source: Ciett



Table 7.5 Sectors and size of companies using agency work (2013, in %)

	Sector						Size of companies using Agency Work				
	Agri-culture	Manufacturing	Construction	Services	Public Administration	Other	1-9 employees	10-49 employees	50-99 employees	100-499 employees	More than 500 employees
Argentina		14		39		47		0	0	7	92
Australia	12	10	20	30	19	9	6	24	21	28	21
Austria		40		38							
Belgium	2	33	5	54	1	4					
Brazil	10	20	5	45		20	5	10	15	45	25
Colombia *	12	24	4	15		7					
Croatia	5	15	5	40	5	30					
Czech Republic	1	62	12	14	8	3		2	8	30	60
Denmark		29	10								
Estonia		75		25				10	20	20	50
France	1	43	22	35							
Germany	0	46	5	35	12	4		22	22	26	30
Greece		8	0	82		9	2	9	21	28	40
Hungary	2	58	1	2	12	26					
India		8	12	78	2			1	2	19	78
Italy	1	52	3	30	8	6	40	31	10	14	5
Japan		29	8	46		16	11	42	21		23
Luxembourg	0	20	37	24	0	18	10	25	15	40	10
Macedonia	5	48		3	40	4					
Mexico	5	25	5	36	16	13	11	14	18	34	23
Netherlands	4	18	9	24	7	38	10	19	14	57	
Norway		13	24	50	13						
Poland		67	2	23	0	8					
Romania	2	39	2	34		23	8	10	16	30	36
Singapore		20	10	50	10	10	2	8	30	40	20
South Africa	4	22	8	49	2	15		12	12	37	39
Spain	23	27	0	46	0	4	14	30	22	25	9
Sweden	1	25	1	40	10	28					
Switzerland	1	44	16	39	1						
UK		36	4	52		8					

Source: Ciett

Table 7.6 job quality ratings (0= lowest, 5 = highest)

	Job security	Job conversion	Working time limits	Discrimination protection	Pensions	Welfare	Training	Decent Pay	Representation	Average ratings
Full-time indefinite	3.8	2.3	4.7	4.8	4.4	4.8	2.3	4.4	4.0	3.9
Part-time indefinite	3.2	2.3	4.5	4.8	4.4	4.6	2.6	3.8	4.3	3.8
Fixed term	3.1	2.2	4.6	4.7	4.4	4.5	2.6	4.0	4.2	3.8
Agency Work	3.0	2.0	4.3	4.7	4.0	4.5	2.7	4.0	3.8	3.7
Seasonal	2.4	1.9	3.9	4.4	3.7	4.0	2.3	3.5	3.9	3.3
Casual	2.4	1.8	3.0	3.7	2.9	3.4	1.9	2.6	3.0	2.7
Zero-hours contract	1.7	1.5	2.3	3.8	2.9	3.2	1.7	2.6	2.5	2.5
Bogus self-employed	1.2	1.4	1.3	2.5	2.9	2.4	1.3	1.4	1.2	1.7
Informal	1.1	1.3	1.0	1.4	1.2	1.4	1.1	1.1	1.3	1.2

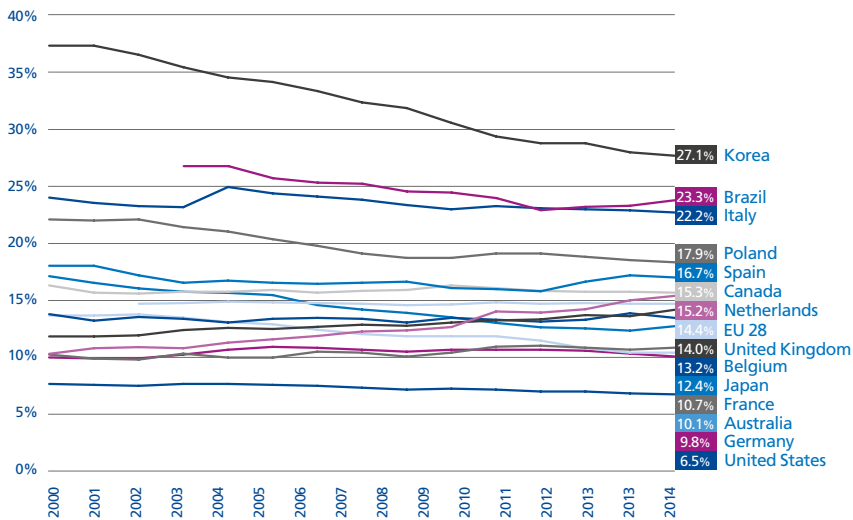
Source: Study on precarious work and social rights, carried out for the European Commission. London Metropolitan University



8. self-employment

When about half of all flexible labor relations consist of fixed-term contracts, the other half consist of self-employment. The share of self-employment around the western world roughly lies between 7 and 20 percent. The US, Canada and the Scandinavian countries have the lowest share of self-employment (and flexible labor in general). In the EU, 14.5 percent of all employment is self-employment. Particularly high shares of self-employment (between 15 and 20 percent) can be found in Southern- and Eastern-European countries, mainly in Turkey, Italy, Portugal, Poland, Romania, Czech Republic, Spain and Slovakia. In these countries, the formal economy is traditionally smaller or still emerging.

Figure 8.1 Self-employment (with and without employees) in % of total employment



Source: ILOSTAT, Eurostat

Many self-employed workers can be found in the agricultural sector. Leaving this sector out of the equation shows that self-employed workers are more evenly spread over Europe. In many of the countries with a high share of self-employed workers, such as Greece, Turkey, Romania and Italy, small agricultural businesses are the reason for this. However, even when looking at the non-agricultural self-employed workers only, these countries still appear at the top of the list.

The growth in self-employed workers has been large and consistent in most European countries in the last decade. This was not only the case during the pre-crisis period, it has continued since then. In a number of countries the post-crisis growth in self-employed workers has even been larger than the pre-crisis growth, for example in the United Kingdom, Ireland, France, Poland, Slovenia, and particularly the Netherlands.

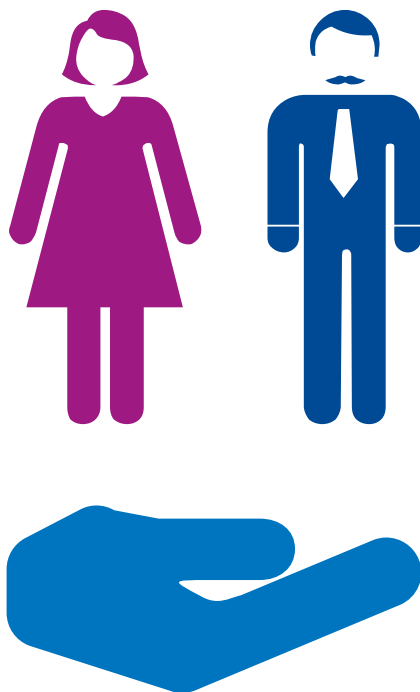
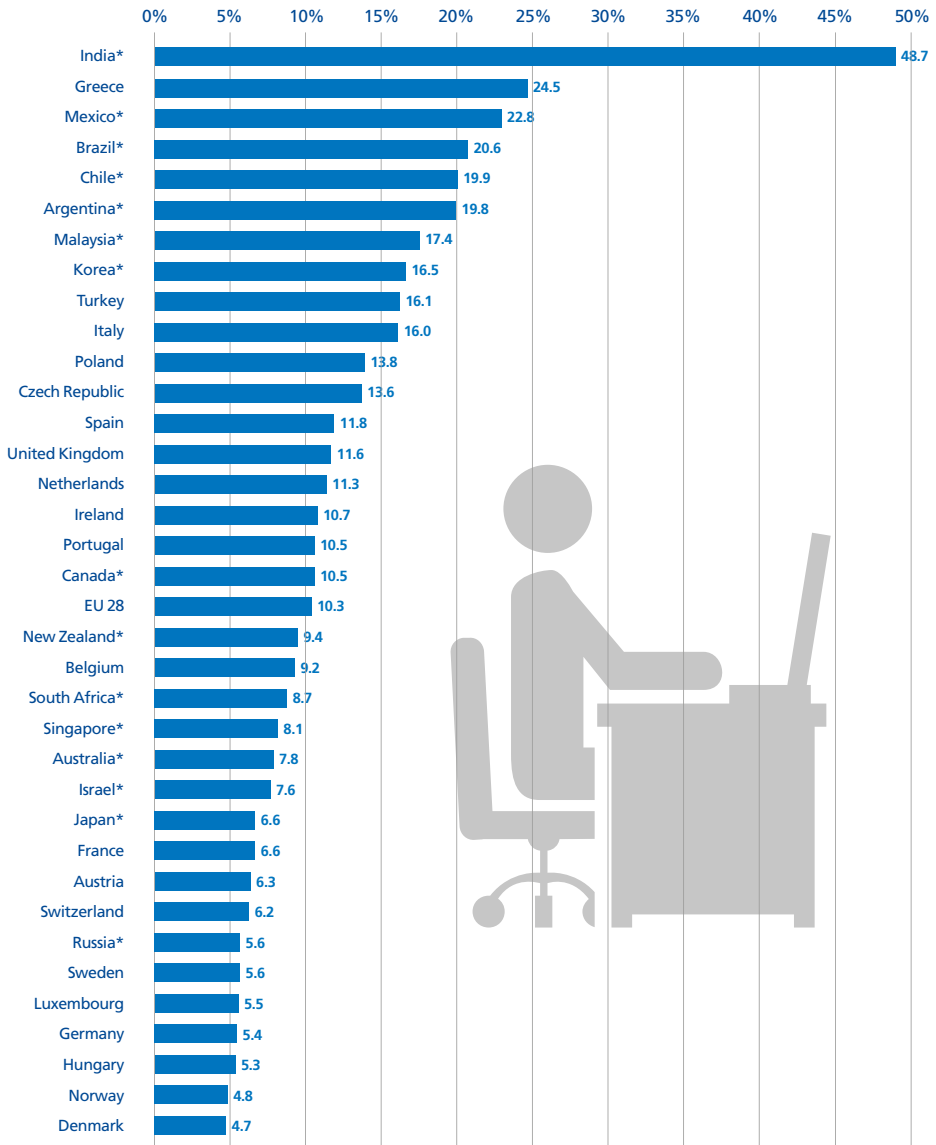




Figure 8.2 Own-account workers in % of total employment



Source: ILOSTAT, Eurostat * Data 2013

In times of economic recession, when jobs are scarce, employees who lose their job may decide to offer their services to companies. These flexible labor services may be attractive to companies as they offer comparable labor productivity in the short run and at lower risks. This may be one explanation for the limited increase in unemployment in the Netherlands after the economic recession of 2009 compared to many other European countries: instead of becoming unemployed, many people started their own business. In the long run however, not all self-employed workers may be good substitutes for traditional employees, who have more opportunities to invest in company-specific knowledge and skills (firm-specific human capital). This would eventually lead to a decline in the share of self-employed workers.

The trend of an increasing share of self-employed workers appears to be typical for the Anglo-Saxon, Rhineland and Francophone parts of Europe only. In *Bridging the Gap* (Randstad/ SEO, 2010), Gunther Schmidt states that most of the growth in own-account work (the largest part of self-employment) for women in Europe between 1995 and 2005, took part in the form of part-time work (54 percent compared to 15 percent in full-time self-employment). A similar pattern can be seen among men. 'Having a family with children' turns out to be the most important driver for the choice of part-time work in self-employment. This pattern is especially strong in so-called 'conservative welfare regimes', where public care facilities are still underdeveloped and traditional values concerning labor division in the family still prevail.



Table 8.1 Self-employment in % of total employment

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Argentina	25.6	25.3			23.7	24.0	23.6	23.1	23	23.5	23.9
Australia	12.9	12.7	12.2	11.8	11.6	11.6	11.6	11.2	10.5	10.1	10.1
Austria	11.3	11.3	11.3	11.1	10.9	11.1	11.3	10.9	10.8	11.0	10.9
Belgium	12.7	13.1	13.2	13.1	12.7	13.2	13.0	12.8	13.0	13.7	13.2
Brazil	26.4	25.3	24.9	24.8	24.1	24.0	23.5	22.4	22.7	22.8	23.3
Bulgaria	12.9	12.0	11.5	10.9	10.9	11.2	11.5	10.8	10.5	11.2	11.5
Canada	15.4	15.6	15.3	15.5	15.6	16.1	15.8	15.5	15.4	15.4	15.3
Chile	36.0	35.4	33.6	32.4	31.0	31.7	26.5	27.6	29.7	29.6	30.4
Croatia	18.6	20.0	18.3	17.0	17.1	16.9	17.8	17.7	16.0	15.4	13.4
Cyprus	19.5	19.6	18.4	17.5	16.9	16.4	15.2	14.7	13.7	14.9	15.2
Czech Republic	16.1	15.1	15.3	15.4	15.2	15.9	16.8	17.2	17.5	16.5	17.0
Denmark	7.6	7.6	8.0	8.0	8.0	8.6	8.4	8.4	8.3	8.2	8.0
Estonia	9.3	7.7	8.0	8.9	7.7	8.2	8.2	8.3	8.5	8.8	8.8
EU 28	14.7	14.6	14.5	14.4	14.2	14.3	14.6	14.4	14.5	14.4	14.4
Finland	11.7	11.7	11.9	11.5	11.8	12.6	12.2	12.2	12.3	12.2	12.6
France	9.7	9.7	10.3	10.2	9.8	10.2	10.8	10.9	10.7	10.5	10.7
Germany	10.5	10.8	10.7	10.5	10.3	10.5	10.5	10.5	10.4	10.1	9.8
Greece	29.2	28.9	28.8	28.3	28.4	28.7	29.2	30.0	31.1	31.7	30.7
Hungary	13.9	13.1	12.1	11.8	11.6	12.0	11.8	11.4	11.0	10.6	10.3
Iceland	12.7	13.6	14.1	13.2	12.0	11.4	11.9	11.8	11.6	11.9	11.7
India		84.4					81.9				
Indonesia		72.6	72.3	72.2	72.3	72.3	70.7	67.3	64.9	63.3	
Ireland	16.3	15.4	14.8	15.3	15.7	15.7	15.1	14.7	14.5	15.2	15.1
Israel	13.2	13.1	13.2	12.7	12.7	12.9	12.8	12.6	12.7	12.6	12.5
Italy	24.6	24.0	23.7	23.4	22.9	22.5	22.8	22.6	22.5	22.4	22.2
Japan	15.4	15.2	14.3	13.9	13.6	13.2	12.7	12.3	12.2	12.0	12.4
Korea, Republic of	34.0	33.6	32.8	31.8	31.3	30.0	28.8	28.2	28.2	27.4	27.1
Latvia	9.2	9.1	9.7	9.0	8.7	9.8	9.9	10.1	10.2	10.5	10.6
Lithuania	15.6	14.1	14.0	12.4	10.1	10.2	9.1	9.0	9.6	10.5	10.6
Luxembourg	7.7	7.7	7.6	7.0	6.1	7.4	7.2	7.7	8.0	7.9	7.8
Malta	13.8	13.6	13.6	14.0	13.6	13.6	14.0	13.1	13.1	13.3	13.2
Mexico	36.5										
Netherlands	11.0	11.3	11.6	12.0	12.1	12.4	13.8	13.7	14.0	14.8	15.2
New Zealand	19.1	18.4	17.6	17.2	17.2	16.4	16.2	16.6	16.6	15.3	
Norway	6.9	6.9	7.7	7.3	7.1	7.4	7.2	6.5	6.3	6.3	6.6
Philippines	47.9		48.9	47.8	47.6	46.7	45.5	44.8	43.4	41.6	42.1
Poland	20.7	20.0	19.4	18.7	18.3	18.3	18.7	18.7	18.4	18.1	17.9
Portugal	20.7	20.2	19.2	19.2	19.0	18.7	17.7	16.8	17.0	17.1	15.5
Romania	17.6	19.0	18.3	18.6	18.2	18.4	20.3	18.6	18.9	18.8	18.4
Russia			7.6	7.3	7.3	7.5	6.9	7.2	7.1	7.3	7.5
Slovakia	11.9	12.5	12.5	12.8	13.6	15.5	15.8	15.8	15.3	15.4	15.2
Slovenia	9.6	9.3	10.4	10.0	9.3	10.1	11.6	11.9	11.6	11.6	12.1
South Africa					16.0	15.4	15.6	15.5	15.2	14.5	
Spain	16.4	16.2	16.1	16.2	16.3	15.7	15.6	15.4	16.3	16.9	16.7
Sweden	9.5	9.6	9.8	9.6	9.4	9.6	9.8	9.3	9.2	9.4	9.1
Switzerland	13.5	13.4	13.0	13.1	13.1	12.2	12.5	12.2	12.1	12.1	11.8
Thailand	54.6	54.1	55.0	54.9	55.1	55.4	55.6	56.0	56.3	56.6	
Turkey			26.7	25.7	25.1	25.2	24.2	23.3	22.7	22.1	20.6
United Kingdom	12.3	12.2	12.4	12.6	12.5	12.8	13.0	13.1	13.5	13.4	14.0
United States	7.6	7.5	7.4	7.2	7.0	7.1	7.0	6.8	6.8	6.6	6.5
Viet Nam										65.3	64.8

Source: Eurostat, *stats.oecd

Table 8.2 Own-account workers in % of total employment

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Argentina							18.4	18.9	19.0	19.8	
Australia	9.5	9.3	9.0	8.9	8.7	8.8	8.7	8.6	8.1	7.8	
Austria	7.1	6.8	6.6	6.3	6.3	6.5	6.7	6.3	6.3	6.6	6.3
Belgium	8.2	8.5	8.6	8.7	8.5	8.8	8.6	8.7	9.0	9.5	9.2
Brazil	26.1	21.6	21.2	21.2		20.5		21.0	20.6	20.6	
Bulgaria	9.1	8.2	7.6	6.9	7.3	7.7	7.8	7.2	7.0	7.4	7.8
Canada						10.8	10.6	10.5	10.5	10.5	
Chile	26.5	24.9	24.1	23.2	22.7	24.1	20.8	19.6	19.2	19.9	
Croatia	13.6	14.8	13.1	11.6	11.7	12.0	13.1	13.0	11.5	11.0	8.2
Cyprus	13.1	12.4	12.1	11.6	11.6	11.4	10.7	10.5	9.7	11.0	11.7
Czech Republic	12.1	11.4	11.3	11.7	11.7	12.2	13.2	13.7	14.2	13.3	13.6
Denmark	4.2	4.0	4.1	4.3	4.3	4.8	4.9	4.8	4.8	4.9	4.7
Estonia	5.8	5.0	5.3	5.5	4.3	4.3	4.6	4.2	4.7	5.1	5.4
EU 28	10.2	10.2	10.1	10.0	9.8	9.9	10.2	10.2	10.3	10.3	10.3
Finland	7.6	8.0	8.0	7.6	8.0	8.5	8.1	8.2	8.4	8.3	8.5
France	5.4	5.4	5.9	5.8	5.2	5.7	6.3	6.5	6.4	6.3	6.6
Germany	5.5	6.1	6.0	5.8	5.7	5.8	5.9	5.9	5.9	5.6	5.4
Greece	21.4	21.2	20.9	20.4	20.2	20.6	21.5	22.6	24.2	25.1	24.5
Hungary	8.0	7.3	6.7	6.6	6.5	6.7	6.4	6.2	5.9	5.5	5.3
Iceland	8.0	8.4	9.0	8.4	7.5	7.3	7.9	7.9	7.7	7.8	8.0
India											48.7
Indonesia	43.4	41.9	42.6	42.4	42.6	41.9	40.0	36.0	33.9	34.2	
Ireland	10.6	9.9	9.5	9.7	10.1	10.4	10.2	10.1	10.0	10.7	10.7
Israel	6.8	7.2	7.6	7.2	7.0	7.4	7.7	7.6	7.6	7.6	
Italy	17.6	17.1	16.9	16.7	16.2	16.1	16.4	16.2	16.2	15.8	16.0
Japan	7.8	7.7	7.3	7.1	7.0	7.0	6.8	6.7	6.7	6.6	
Korea, Republic of	19.6	19.7	19.4	19.2	18.8	17.8	17.2	16.9	16.9	16.5	
Latvia	6.0	5.7	6.3	5.7	5.2	6.0	5.9	6.4	6.4	6.3	6.7
Lithuania	13.7	12.1	11.8	10.3	8.0	7.8	6.8	6.6	7.4	8.4	8.3
Luxembourg	4.9	4.9	4.9	4.1	3.8	4.8	4.1	5.1	5.0	5.3	5.5
Malaysia	16.8	16.6	16.9	17.4	17.4	17.1	17	15.6	16.6	17.4	
Malta	9.4	9.2	9.3	9.1	9.1	9.2	9.6	8.9	8.8	9.0	9.0
Mexico	24.6	23.6	22.8	22.6	22.5	23.2	22.4	22.7	22.8	22.8	
Netherlands	7.3	7.5	7.8	8.1	8.4	8.7	9.9	9.9	10.2	11.0	11.3
New Zealand	11.5	11.2	11.2	10.7	11.1	10.4	10.5	11.2	10.5	9.4	
Norway	5.4	5.4	5.8	5.3	5.1	5.2	5.0	4.7	4.6	4.6	4.8
Philippines	31.7	32.8	32.2	31.5	31.2	30.6	30.1	29.6	28.3	27.9	
Poland	16.7	16.0	15.3	14.7	14.3	14.2	14.5	14.5	14.3	14.0	13.8
Portugal	14.4	14.3	13.7	13.7	13.5	13.4	12.6	11.8	12.1	12.1	10.5
Romania	16.0	17.2	16.6	17.0	16.8	16.9	18.9	17.3	17.6	17.5	17.3
Russian Federation	5.8	6.1	6.0	5.7	5.6	5.6	5.1	5.5	5.3	5.6	
Saudi Arabia						4.8				3.4	
Singapore	9.4		9.3	9.5	9.3			8.8	8.6	8.1	
Slovakia	8.5	9.3	9.4	9.7	10.4	12.1	12.2	12.3	12.4	12.3	12.1
Slovenia	6.1	6.1	6.8	6.7	6.1	6.7	7.8	8.3	8.2	8.3	8.7
South Africa	10.5	11.2	12.1	10.8	9.2	9.2	9.3	9.3	9.3	8.7	
Spain	11.1	11.2	10.9	10.9	10.7	10.2	10.2	10.4	11.3	11.9	11.8
Sweden	5.9	5.7	6.0	5.8	5.7	6.0	6.0	5.8	5.5	5.6	5.6
Switzerland	7.3	7.1	6.9	7.2	7.1	6.6	6.6	6.5	6.3	6.3	6.2
Turkey			21.1	20.0	19.2	19.6	19.0	18.2	17.7	17.5	16.1
United Kingdom	9.3	9.4	9.6	9.8	9.8	10.1	10.5	10.7	11.1	11.1	11.6
Viet Nam	41.2					44.7	43.3	43.9	45.2	45.5	

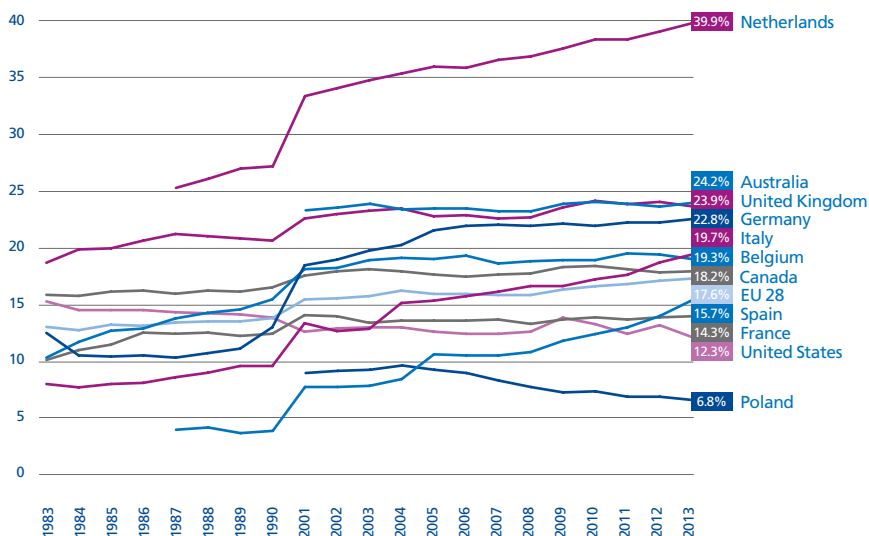
Source: ILOSTAT, Eurostat



9. part-time employment

When looking at the incidence of part-time work we see that the Netherlands take a special position. Nearly 40% of all employed Dutch persons are working in a part-time job of less than 30 hours/week (mostly women). Also the British and Swiss workforces have a relatively large share of part-time workers. On the other side of the Atlantic, part-time rates are fairly stable. In Australia part-time work is also quite common. Overall the use of part-time work in Europe has increased during the last decades. In the Eastern-European countries (Slovakia, Hungary, Czech Republic) part-time jobs are found only incidentally. Apparently part-time work is not (yet) an important aspect of the labor market structure in these countries.

Figure 9.1 Share of part-time employment (in %)



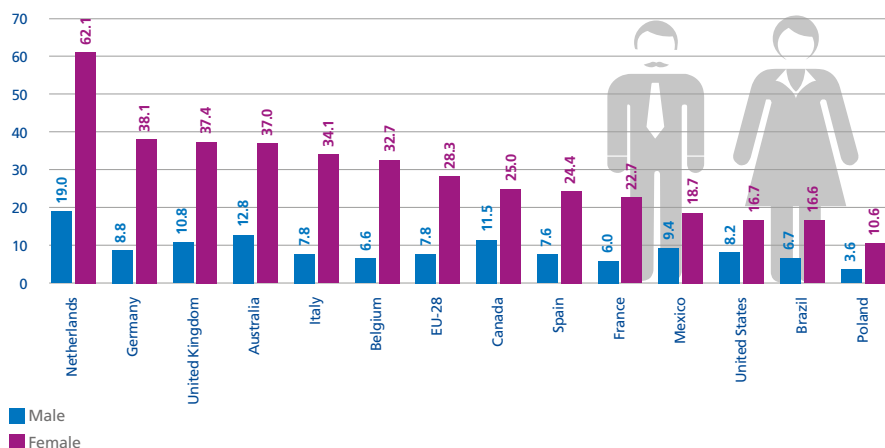
Source stats.oecd

Apart from the Netherlands and Switzerland, a second group of 'part-time countries' namely Denmark and the UK, can be identified. Though in 1983 about 20% had a part-time job in these two countries (just as much as in the Netherlands at that time and far more than in the rest of Europe), part-time employment has not become more popular in the UK and particularly in Denmark. In 2010 still only a quarter of all jobs were part-time jobs. In other Western European countries working part-time was not very common in the beginning. But among these 'fulltime countries' some interesting developments can be seen in the last 10-15 years. A steady growth from 11-16% to 17-25% in the Central European countries (Austria, Belgium, France, Germany); a more modest growth to 10% (Portugal) or 15% (Spain, Italy) in the Southern European countries, and a special case for Ireland that was 'promoted' from the Southern European level to the Central European level during the nineties.

Part-time work is still a female and young phenomenon

When looking at gender differences in the popularity of part-time work, Figure 9.2 and 9.3 clearly demonstrates that part-time work is a female phenomenon. The Netherlands and the Scandinavian countries are the only countries where the part-time rate for men is somewhere near one third of the female part-time rate. Dutch female employment was not only relatively high in 2013, it also increased relatively fast since 1990. This confirms that most of the increased female participation during the nineties, was through women entering the labor market in part-time jobs. On the other hand, in the Scandinavian countries, many women went from part-time jobs to full-time jobs, so there was no net increase in part-time work there.

Figure 9.2 Share of part-time employment by gender (in %)

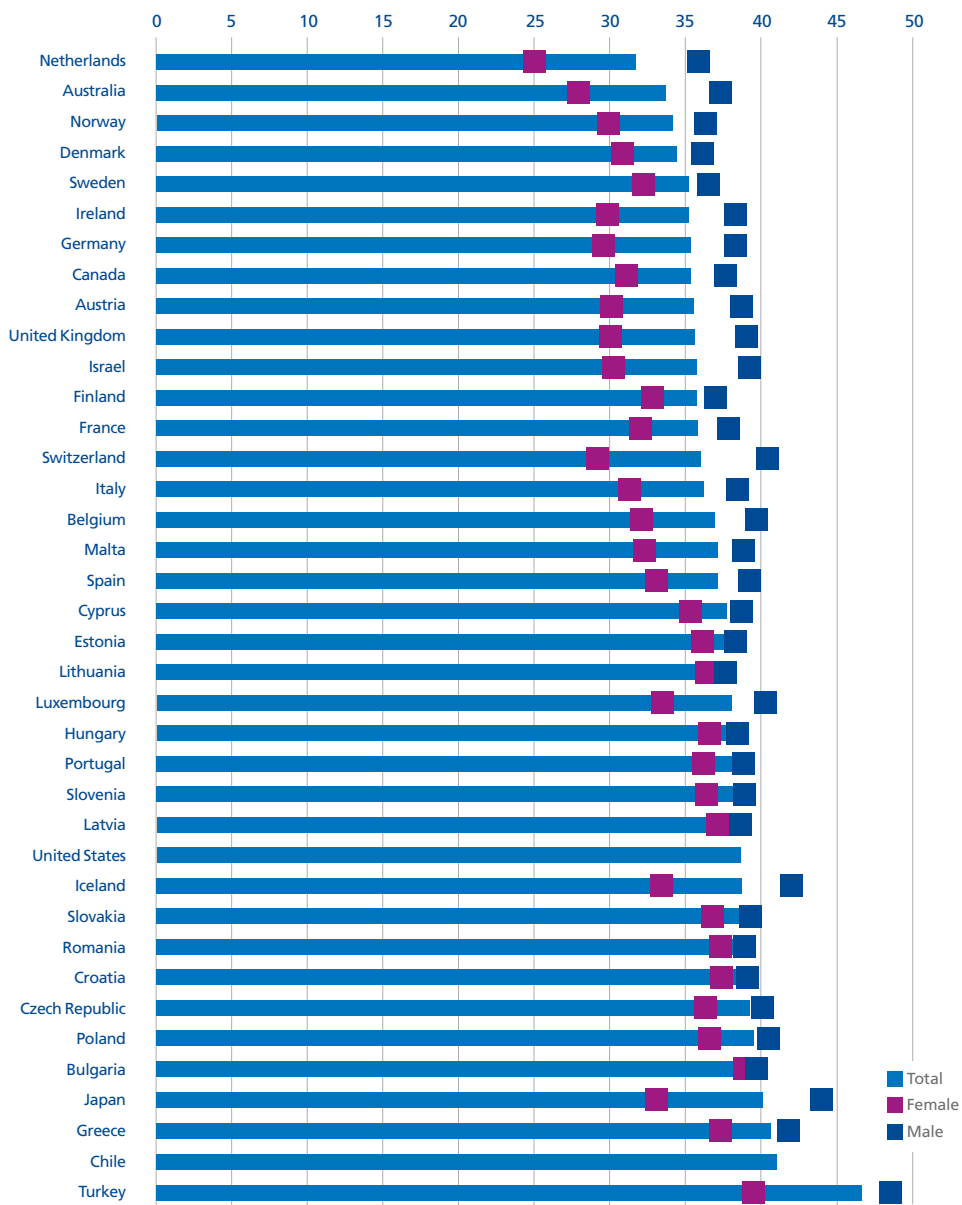


Source stats.oecd

Another characteristic of part-time work is that it is more popular among young people. That might be because they are still in education, or because they like the flexibility more, or because it is all the work they are able to find without qualifications. A clear example is given where part-time rates are plotted by sex and age group for Germany. Although young women are more often in part-time jobs than young men, the difference between the sexes is far less than it is for the other age groups.

In other countries similar patterns can be found: a rising part-time share among youth. But for employees aged 25-54 an increasing share is not evident everywhere. In fact, in Denmark, UK and Norway part-time work became less common among women in this age group, in contrast to Belgium and the Netherlands.

Figure 9.3 Average hours worked per week (2014)



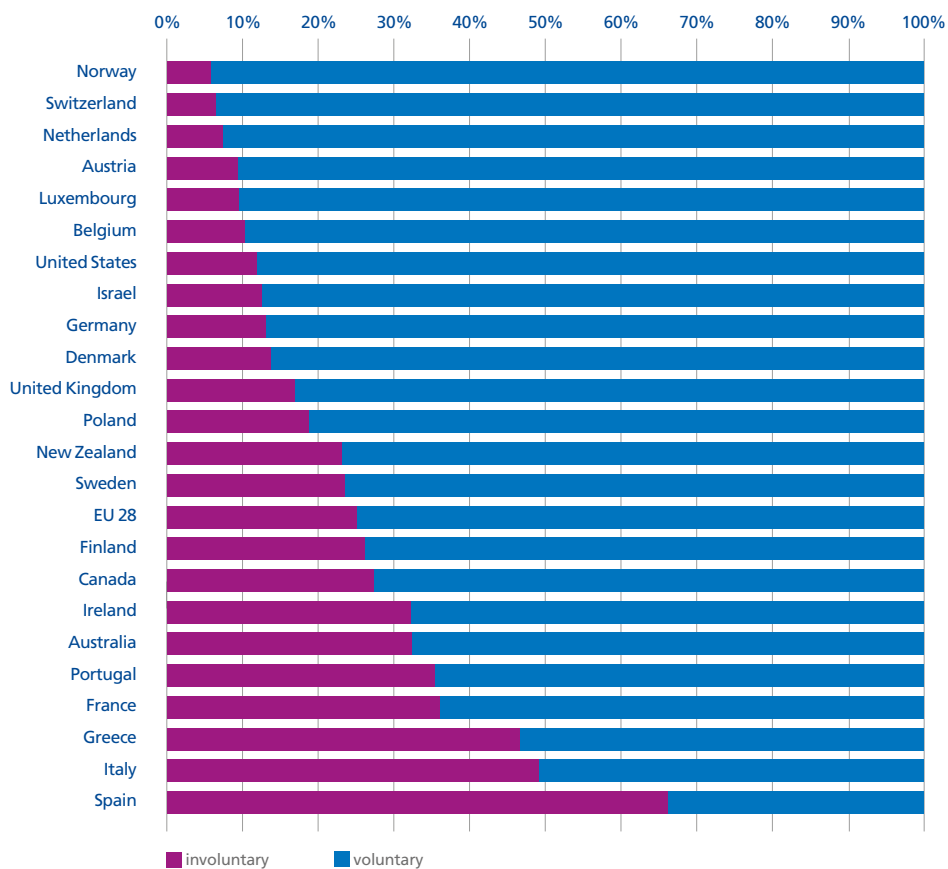
Source: ILOSTAT



Is part-time work the preferred choice?

Several reasons explain why people work in a part-time job instead of in a 'traditional' fulltime job. Some people might be looking for a full-time job but are not able to find it, while others might prefer to work part-time in the first place. These people might be in education, taking care of young children or performing other household tasks. If an employee wants a full-time job but cannot find it, part-time work is considered as the second choice. If an employee does not want to have a full-time job at all, part-time work is considered as the preferred choice. The high and growing share of part-time work in some countries, together with rising participation, suggests that not all (new) employees are prefer full-time jobs. Figure 6 confirms this proposition; the higher the share of part-time workers in a country, the lower the share of people actually preferring full-time jobs. Thus, differences in part-time rates between EU countries are mainly employee-driven. They are not strongly related to economic differences but rather to cultural differences.

Figure 9.4 Incidence of voluntary and involuntary parttime work

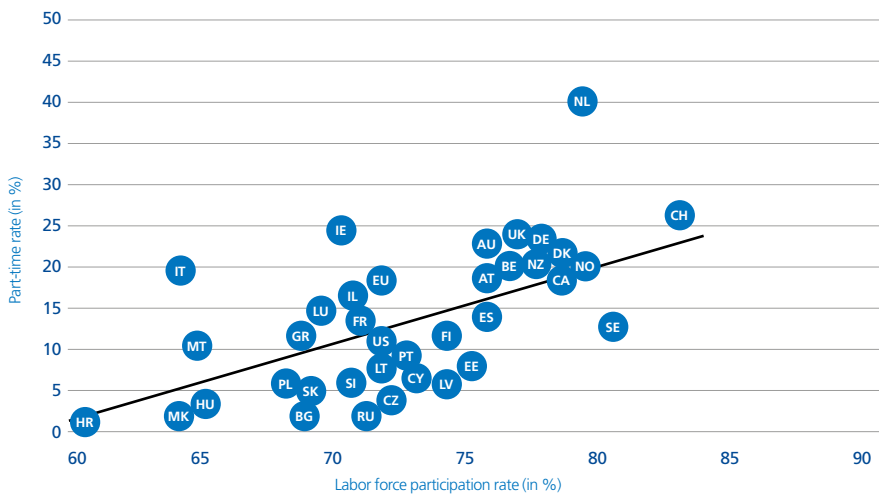


Source: stats.oecd (2013)



Regarding the increase of participation, one might state that the rise in participation owes to a large extent to the possibility of part-time jobs, which stimulated many households to participate with both members. In the last decades some countries faced a transition from the standard 'breadwinner household' to the more modern '1.5 jobs per family' households, gaining popularity among young families with children. Figure 7 demonstrates that there is a strong correlation between employment participation and the possibility to work part-time. Although the exact cause cannot be determined from this graph, it suggests that the countries in the upper right have extended their labor markets by offering more part-time opportunities.

Figure 9.5 Labor force participation is higher in countries with a high parttime rate



Source: stats.oecd (2013)

Table 9.1 Part-time employment (age 15-64, in % of total employment)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Australia	24.1	23.5	23.6	23.6	23.3	23.3	24.1	24.3	24.1	23.8	24.2
Austria	14.1	16.1	16.7	17.4	17.0	17.4	18.2	18.6	18.7	19.0	19.3
Belgium	19.2	19.4	19.3	19.6	18.9	19.1	19.2	19.2	19.8	19.7	19.3
Brazil	10.9	10.9	11.3	11.6	11.2	10.9	11.1		10.8	11.0	11.2
Bulgaria			1.5	1.4	1.3	1.1	1.3	1.4	1.5	1.7	2.0
Canada	18.4	18.2	17.9	17.7	17.9	18.0	18.6	18.7	18.4	18.1	18.2
Chile	2.2	2.6	2.8	3.5	3.8	4.4	5.1	10.7	8.6	8.1	
Croatia			1.3	1.1	1.1	1.0	1.0	1.1	1.1	0.9	1.2
Cyprus			4.6	4.5	4.2	4.4	4.6	4.7	5.3	6.2	6.9
Czech Republic	3.0	2.9	3.1	3.1	3.3	3.3	3.6	4.0	3.7	4.0	4.4
Denmark	16.6	17.5	17.6	18.4	17.6	18.3	19.4	19.7	19.7	20.0	19.8
Estonia	7.4	6.6	6.7	6.7	6.3	5.8	7.9	8.2	8.1	7.8	7.6
European Union 28	16.0	16.5	16.2	16.2	16.1	16.1	16.6	16.9	17.1	17.4	17.6
Finland	10.8	10.7	10.5	10.7	10.8	10.7	11.3	11.5	11.8	12.2	12.1
France	13.7	13.9	13.9	13.9	14.0	13.6	14.0	14.2	14.0	14.2	14.3
Germany	20.0	20.5	21.8	22.2	22.3	22.2	22.4	22.2	22.5	22.5	22.8
Greece	6.8	6.9	7.2	8.2	8.6	8.7	9.7	10.2	10.4	11.5	12.1
Hungary	3.1	3.2	3.2	2.7	2.8	2.9	3.5	3.5	4.8	4.6	4.4
Iceland	16.7	16.7	16.9	16.6	16.1	15.4	17.5	18.1	16.9	17.2	17.4
Ireland	19.9	19.9	20.4	20.3	20.9	21.7	24.8	25.7	26.6	25.9	25.1
Israel	15.6	15.4	15.3	15.4	15.0	14.9	15.0	14.2	13.8	14.9	14.4
Italy	13.1	15.4	15.6	16.0	16.4	16.9	16.9	17.5	17.9	19.0	19.7
Latvia			5.4	3.8	4.4	5.3	6.4	6.8	7.1	7.3	6.4
Lithuania			7.8	6.5	6.3	5.1	6.2	6.9	8.2	8.9	8.4
Luxembourg	13.9	13.5	14.1	12.8	13.1	13.3	15.6	15.4	15.5	14.9	14.5
Macedonia				1.6	1.9	2.0	1.9	2.1	2.1	2.1	1.6
Malta			9.5	8.8	9.6	9.2	9.3	10.5	11.1	11.0	11.6
Mexico	8.9	9.9	11.5	11.5	11.6	11.6	12.4	12.9	12.5	13.2	13.0
Netherlands	34.9	35.5	36.1	36.0	36.7	37.0	37.7	38.5	38.5	39.2	39.9
New Zealand	22.7	22.1	21.5	21.0	21.7	21.9	22.2	21.5	21.4	21.6	20.6
Norway	21.2	21.2	21.0	21.5	20.8	20.6	20.5	20.3	20.3	19.9	19.7
Poland	9.6	10.0	9.6	9.3	8.6	8.0	7.5	7.6	7.1	7.1	6.8
Portugal	5.1	5.0	4.9	4.5	5.2	5.3	5.3	4.9	6.5	7.2	7.2
Romania			0.9	0.8	0.7	0.7	0.8	0.9	0.8	0.8	0.7
Russian Federation	3.1	3.1	2.9	2.6	2.7	2.7	2.8	2.4	2.2	2.0	2.1
Slovak Republic	2.2	2.6	2.5	2.5	2.4	2.7	3.1	4.0	4.5	4.1	4.7
Slovenia	4.1	5.4	5.5	5.8	5.8	5.9	6.2	7.1	6.8	6.3	6.5
South Africa						6.7	7.0	6.7	6.5	6.6	7.1
Spain	8.1	8.7	10.9	10.8	10.8	11.1	12.1	12.7	13.3	14.3	15.7
Sweden	13.9	14.3	13.6	13.4	13.9	13.9	14.1	13.8	13.7	13.5	13.5
Switzerland	24.5	24.2	24.5	24.7	24.3	25.2	25.7	25.5	25.0	25.2	25.4
Turkey	2.5	2.2	2.4	2.7	2.6	2.6	3.6	4.0	4.0	3.9	4.4
United Kingdom	23.5	23.7	23.0	23.1	22.8	22.9	23.8	24.4	24.1	24.3	23.9
United States	13.2	13.2	12.8	12.6	12.6	12.8	14.1	13.5	12.6	13.4	12.3

Source stats.oecd.org



Table 9.2 Part-time employment females (age 15-64, in % of total employment)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Australia	38.2	37.3	37.5	37.1	36.6	36.5	36.9	37.3	37.2	36.9	37.0
Austria	27.8	30.5	30.7	32.0	31.5	31.4	32.2	32.9	32.8	33.3	33.2
Belgium	35.1	35.0	34.2	35.1	33.3	33.6	32.9	32.8	33.6	33.4	32.7
Brazil	18.1	18.2	18.4	18.7	17.8	17.7	17.8		16.6	16.5	16.6
Bulgaria			2.1	2.0	1.8	1.6	1.8	1.9	2.0	2.2	2.7
Canada	26.5	26.0	25.6	25.1	25.2	25.2	25.7	25.9	25.5	25.1	25.0
Chile	3.9	4.6	5.1	6.2	6.7	7.2	8.3	17.3	12.9	12.0	
Croatia			1.9	1.9	1.8	1.5	1.7	1.7	1.7	1.3	1.8
Cyprus			7.5	7.2	6.5	6.6	6.7	6.3	7.2	8.7	9.3
Czech Republic	5.0	4.8	5.1	5.1	5.3	5.4	5.6	6.5	6.1	6.3	7.1
Denmark	22.9	24.0	23.8	24.8	23.4	23.6	24.8	25.6	25.4	25.0	25.1
Estonia	10.2	8.7	9.2	10.0	9.5	8.5	10.6	11.1	12.2	11.4	10.8
European Union 28	28.1	28.8	27.8	27.7	27.5	27.3	27.7	27.9	28.0	28.2	28.3
Finland	14.5	14.5	14.1	14.2	14.6	14.4	15.0	15.1	15.2	15.7	15.8
France	23.5	23.7	23.1	23.2	23.3	22.4	23.0	22.9	22.4	22.6	22.7
Germany	36.5	37.2	39.0	39.2	39.2	38.7	38.6	38.2	38.3	38.0	38.1
Greece	11.7	11.4	11.9	13.1	13.7	14.0	15.3	15.5	15.1	16.6	17.5
Hungary	4.6	4.6	4.8	4.1	4.2	4.1	5.0	5.0	6.3	6.3	5.9
Iceland	25.4	25.9	26.2	25.9	24.8	22.9	25.4	25.5	23.9	23.4	24.3
Ireland	33.4	34.0	34.5	34.2	34.9	35.3	37.2	38.0	39.0	37.3	36.0
Israel	24.6	24.2	24.6	24.4	23.8	23.1	23.0	21.6	21.0	21.7	21.2
Italy	24.9	29.3	29.9	30.3	31.2	31.6	31.7	32.2	32.6	33.5	34.1
Latvia			8.1	5.6	6.2	7.5	8.2	8.7	8.7	9.6	8.4
Lithuania			11.9	9.4	8.9	7.2	8.2	8.8	10.1	11.2	10.7
Luxembourg	31.3	30.0	31.3	27.4	27.7	28.7	30.1	30.0	29.6	27.5	27.2
Macedonia				2.3	2.8	2.9	2.7	2.9	2.7	2.9	2.1
Malta			19.3	18.1	20.9	20.1	18.8	20.5	20.4	20.3	19.8
Mexico	17.1	18.1	19.4	18.7	18.3	17.9	18.7	19.1	18.6	19.0	18.7
Netherlands	59.6	60.4	60.6	60.0	60.2	60.2	60.5	61.6	61.6	62.1	62.1
New Zealand	34.8	34.0	33.5	32.8	33.1	32.9	32.9	32.2	32.6	33.3	31.5
Norway	33.2	33.2	32.9	33.0	31.6	30.9	30.4	29.8	30.1	29.2	28.8
Poland	14.8	15.4	15.3	14.6	13.5	12.6	11.8	11.7	11.2	11.0	10.6
Portugal	8.8	8.5	8.4	7.5	8.7	8.9	8.7	8.0	9.9	10.6	10.6
Romania			1.5	1.3	1.0	1.0	1.3	1.4	1.3	1.2	1.1
Russian Federation	4.8	4.8	4.5	4.0	4.0	4.0	4.1	3.6	3.3	3.1	3.2
Slovak Republic	3.2	3.9	3.7	3.8	3.9	3.9	3.9	4.9	5.8	5.3	5.9
Slovenia	5.1	6.9	7.2	7.6	7.5	8.0	7.9	9.3	8.8	8.5	8.7
South Africa						10.5	10.9	10.5	9.8	10.3	10.9
Spain	16.7	17.6	21.3	20.4	20.2	20.4	21.1	21.6	22.0	23.1	24.4
Sweden	20.4	20.6	18.7	18.7	19.3	19.2	19.2	18.8	18.4	18.0	17.7
Switzerland	44.4	43.8	44.4	44.0	44.0	44.6	45.4	44.9	44.1	44.2	44.2
Turkey	5.4	5.2	5.7	5.4	5.8	5.7	7.5	8.0	8.0	7.6	8.4
United Kingdom	38.9	39.0	37.7	37.7	37.2	36.7	37.6	38.3	38.1	37.9	37.4
United States	18.8	18.8	18.3	17.8	17.9	17.8	19.2	18.4	17.1	18.3	16.7

Source: stats.oecd.org

Table 9.3 Average hours worked per week

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Australia											33.7
Austria	39.3	38.6	38.3	37.9	37.6	36.6	36.4	36.5	36.2	35.9	35.5
Belgium	36.2	36.7	36.8	37.0	36.7	36.6	36.9	36.8	36.6	36.9	36.9
Bulgaria	40.6	40.6	41.0	41.1	41.0	40.3	40.5	40.2	40.1	40.0	40.0
Canada	36.2	36.4	36.2	36.4	36.1	35.3	35.5	35.7	35.9	35.7	35.3
Chile											41.0
Croatia	40.2	39.6	39.8	40.1	39.8	39.5	39.4	39.2	39.1	39.0	39.0
Cyprus	38.6	39.1	39.1	39.0	38.9	38.5	38.7	38.5	38.7	38.1	37.7
Czech Republic	42.0	41.7	41.4	41.3	41.3	40.5	40.4	40.3	39.9	39.3	39.2
Denmark	33.7	35.1	34.8	34.9	34.7	34.3	34.6	34.9	34.6	34.7	34.4
Estonia	39.8	39.8	39.9	39.6	39.1	37.6	38.4	38.5	38.2	38.1	37.9
Finland	36.5	37.0	36.8	36.7	36.7	36.1	36.4	36.4	36.1	35.7	35.7
France											35.8
Germany	36.9	36.8	36.0	36.0	35.9	35.3	35.6	35.6	35.5	35.2	35.3
Greece	42.0	41.9	41.5	41.1	41.0	40.7	40.8	40.9	40.8	40.9	40.6
Hungary	40.7	40.3	40.2	40.0	40.0	39.6	39.5	39.1	38.4	38.3	38.2
Iceland	40.6	40.9	41.1	40.6	40.5	38.5	38.5	38.9	38.6	38.6	38.7
Ireland	37.0	37.3	37.1	36.7	36.1	35.0	34.9	34.8	34.8	35.1	35.2
Israel							36.3	36.3	36.1		35.7
Italy	38.4	38.1	37.9	37.9	37.6	37.2	37.3	37.0	36.4	36.3	36.2
Japan									40.1		
Latvia	40.9	41.3	41.3	40.6	39.4	38.9	38.4	38.5	38.3	38.3	38.6
Lithuania	37.9	38.1	38.0	38.5	39.2	38.6	38.4	38.3	38.0	38.0	37.9
Luxembourg	38.2	37.9	37.6	37.5	37.2	37.8	37.7	37.8	38.1	37.6	38.0
Malta	40.7	38.7	38.7	39.0	39.0	38.7	38.1	37.7	37.6	37.5	37.1
Netherlands	30.6	31.6	31.9	31.7	31.7	31.4	31.5	31.7	31.5	31.3	31.7
Norway	32.9	34.5	34.2	34.0	34.1	33.7	33.7	33.9	33.9	33.7	34.1
Poland	40.6	40.3	40.3	40.3	40.1	39.7	39.6	39.5	39.4	39.3	39.5
Portugal	38.7	38.4	38.2	37.9	37.8	37.9	38.0	38.0	37.8	38.0	38.3
Romania	40.7	40.1	39.8	39.7	39.6	39.4	39.2	39.1	39.0	38.9	38.9
Slovakia	40.7	41.0	40.1	40.3	39.8	39.2	39.5	39.4	39.5	39.5	38.9
Slovenia	39.6	40.2	39.5	39.5	39.5	38.8	38.6	38.4	38.5	38.6	38.5
Spain	38.3	38.6	38.5	38.4	38.3	37.8	37.7	37.6	37.2	37.2	37.1
Sweden	34.4	35.6	35.4	35.4	35.4	35.0	35.6	35.5	35.4	35.3	35.2
Switzerland	37.2	37.3	37.3	36.8	37.0	36.4	36.8	36.7	36.5	36.4	36.0
Turkey			51.5	49.3		48.4	47.4	47.0	47.8	46.5	46.6
United Kingdom	35.5	35.8	35.7	35.8	35.5	35.4	35.3	35.2	35.4	35.5	35.6
United States	39.0	39.2	39.2	39.2	38.9	37.9	38.2	38.3	38.5	38.6	38.6

Source: ILOSTAT



appendix

glossary

active labor force	'active' part of the 'potential labor force', i.e. the number of employed plus the number of unemployed
active population	same as 'labor force' or 'active labor force'
agency work	employment where a worker is employed by a temporary work agency and hired out to perform his/her work at (and under the supervision of) the user company, the employment contract is of limited or unspecified duration with no guarantee of continuation, short for 'temporary agency work'
CIETT	International Confederation of Private Employment Agencies
ELFS	European Labor Force Survey
employment rate	total employment, that consists of employees and self-employed, as a percentage of the 'potential labor force'
EU	European Union
fixed-term contract	employment contract of which the end is determined by objective conditions, such as a specific date, the completion of an assignment, or the return of an employee who is temporarily replaced, opposite to 'open-ended contract', same as 'temporary work'
flexible labor	All forms of labor that enables the external numerical adjustment of the labor intake by employers; this can be achieved by employing workers on fixed-term contracts, hiring workers through temporary employment agencies or by hiring labor services from self-employed workers
FTE	fulltime equivalent (1 FTE is usually 36-40 hours per week, depending on country and sector)
ILO	International Labor Organization: tripartite United Nations agency with a membership of 183 countries that draws up international labor standards.
inactive	not working and also not actively searching for a job, e.g. housewives and students who are actively looking for a job are not considered 'inactive', they are counted as 'unemployed', same as 'not in labor force'
inactive population	the people in working age that do not belong to the active population
ISIC	International Standard Industry Classification
labor force	synonym often used instead of 'active labor force': the number of employed plus the number of unemployed (normally defined within a 'working age' category)

LFS	Labor Force Survey
not in labor force	not working and also not actively searching for a job, e.g. housewives and students who are actively looking for a job are not considered 'inactive', they are counted as 'unemployed', same as 'inactive population'
OECD	Organization for Economic Co-operation and Development
open-ended contract	employment contract of unspecified duration, the term of the contract is not fixed, opposite to fixed-term contract, often denoted by 'permanent contract'
own-account workers	workers who, working on their own account or with one or more partners, hold the type of job defined as a self-employed
participation rate	job participation rate synonym for employment rate
part-time work (theoretically)	synonym for employment rate
part-time rate	working less than 1 FTE
(OECD harmonized def.)	share of employees working less than 30 hours/week
part-time rate (Eurostat def.)	for most countries: share of people who self-report working part-time, for the Netherlands, Sweden and Norway the share of employees working less than 35 hours per week
penetration rate	average daily number of temporary agency workers in FTE, as a percentage of total employment in persons
permanent contract	often used as synonym for 'open-ended contract', although strictly not the same
potential labor force	all persons between 15-64 years of age (or sometimes other age brackets, like 20-64 or 20-75), either employed, self-employed or inactive, same as 'working age population'
self-employed	self-employed persons work in their own business, farm or professional practice, producing products or services for the market, including labor services
self-employment	part of total employment that consists of self-employed persons
skill level (of an employee)	the level of the highest successfully completed educational degree: e.g. high school, university etc.
temporary agency work	employment where a worker is employed by a temporary work agency and hired out to perform his/her work at (and under the supervision of) the user company, the employment contract is of limited or unspecified duration with no guarantee of continuation, not similar to temporary work



temporary work

used by Eurostat and other official statistics to indicate fixed-term contracts: employment contract of which the end is determined by objective conditions, such as a specific date, the completion of an assignment, or the return of an employee who is temporarily replaced, includes temporary agency work, opposite to 'open-ended contract'

temp workers

total employment

unemployment

employees categorized by the definition of 'temporary work' the number of employees plus the number of self-employed not working and actively searching for a job, e.g. housewives and (international definition) students who are not actively looking for a job are not counted as unemployed, they are considered 'not in labor force' i.e. 'inactive population'

unemployment rate

the number of unemployed as a percentage of the 'active labor force'

workforce

working age population

synonym for 'labor force'

population between 15-64 years of age, same as 'potential labor force'

data sources

The main focus of flexibility@work is on international comparability between statistics.

The primary source is Labor Force Survey (LFS) data from Eurostat, OECD and ILO: they are to a large degree based on comparable definitions, and also published frequently and on relatively short term.

Where available statistics are presented for the following countries:

- Austria (AT)
- Belgium (BE)
- Bulgaria (BG)
- Croatia (HR)
- Cyprus (CY)
- Czech Republic (CZ)
- Denmark (DK)
- Estonia (EE)
- Germany (DE)
- Finland (FI)
- France (FR)
- Greece (GR)
- Hungary (HU)
- Ireland (IE)
- Italy (IT)
- Latvia (LV)
- Lithuania (LT)
- Luxembourg (LU)
- Malta (MT)
- Netherlands (NL)
- Poland (PL)
- Portugal (PT)
- Romania (RO)
- Slovenia (SI)
- Slovakia (SV)
- Spain (ES)
- Sweden (SE)
- United Kingdom (UK)
- Argentina (AR)
- Australia (AU)
- Brazil (BR)
- Canada (CA)
- India (IN)
- Japan (JP)
- Mexico (MX)
- New Zealand (NZ)
- Norway (NO)
- Russia (RU)
- South Africa (ZA)
- Switzerland (CH)
- Turkey (TR)
- United States (US)



