

People Facing Restrictions on the Labour Market in the European Union: a Complementary Analysis Highlighting the Scale of Labour Underutilisation

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The unemployment rate, as defined by the International Labour Organization (ILO), is a widely used measurement governed by strict criteria relating to availability and the search for employment. However, the unemployment rate indicator does not take into account all workers wanting to work more. Neither does it include people who want to work but who are not actively seeking work or are not immediately available for work. Taking into account the underemployment and unemployment halo indicators provides a deeper insight into labour market imbalances. In metropolitan France in 2017, in addition to the 2.6 million people who were unemployed, 3.0 million people were facing restrictions in respect of the work available to them.

Within the European Union (EU), an examination of all restricted or “underused” labour highlights, for certain countries, situations different from those found when viewed solely through the lens of the unemployment rate. Though the overall rankings remain unchanged, an analysis along these lines sheds a different light on the positive performance of countries such as the United Kingdom and the Netherlands while casting other countries, such as Poland and Slovakia, in a better light. France’s position in the rankings of European countries remains fairly stable when based solely on the unemployment rate or when labour underutilisation as a whole is taken into account. Lastly, a more refined analysis of the underutilisation rate, based on age, gender and education, reveals that barriers to employment affect countries and people differently depending on their characteristics.

Unemployment within the meaning of the International Labour Organization (ILO) is the measure most commonly used to characterise the overall performance of the labour market and the economy and to draw international comparisons. However, the unemployment rate as defined by the ILO, which is widely commented on, by definition excludes part of the population wanting to work and, therefore, an additional potential labour force.

This may explain why, over the recent period, the negative relationship between unemployment rate and changes in wages and inflation (the Phillips curve) has weakened. Despite the decline in the unemployment rate within the European Union (EU) since the peak of 10.9% reached in 2013, wages and prices are not increasing at all or only very slightly. The decline in the unemployment rate is thought to conceal persistent imbalances in the labour market.

Statistical research has evolved to complete the single measure provided by the unemployment rate: in the United States, the “U6” rate, which takes into account the total additional potential labour force, is published officially in addition to the rate of unemployment. For its part, Eurostat has published additional indicators on unemployment since 2010 (*Box 1*). In France, official statistical agencies have been publishing data for more than a decade showing

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Data sources and fields used

INSEE's Continuous Employment Survey aims to observe the situation of people on the labour market both structurally and cyclically. The survey forms part of the EU Labour Force Survey. It is the only source providing a measure of the concepts of activity, unemployment, employment and inactivity as defined by the International Labour Organization (ILO).

The ILO provides a strict definition of unemployment, although its definition ignores some of the interactions that may exist with employment (casual work, underemployment) or inactivity.

Some individuals want to work but are classed as inactive either because they are not immediately available for work (within two weeks) or because they are not actively seeking work.

Since 2010, Eurostat has published complementary indicators of unemployment to reflect the evolution of the additional potential labour force not included in ILO statistics and the development of particular forms of employment, notably part-time work. These indicators are underemployment and the halo of unemployment. In France, statistics for these are available from 2003 onwards.

the porous nature of categorisations in the labour market. These statistics have been the subject of recent studies [Picart, 2018; Picart and Minni, 2016].

Given this context, the production of an indicator broader than the unemployment rate may produce different findings when comparing labour markets in Europe: does France maintain its position within the ranking of countries? Are the dynamics of the labour market similar according to whether we focus on the unemployment rate or the labour underutilisation rate?

The Unemployment Rate in Europe has been on a Downward Trend since 2013

Over the long term, the unemployment rate follows a cyclical pattern: following the peak that occurred after the European Monetary System (EMS) crisis in 1992, the unemployment rate in European countries fell to a low point in 2008. Since then, a new cycle has begun: the unemployment rate in the EU¹ has been rising since the 2008-2009 crisis, reaching a high point in 2013 (10.9% of the **active population** on average in the EU). From mid-2013 onwards, the trend has been downward, with the unemployment rate averaging 7.6% in 2017 (*Figure 1*).

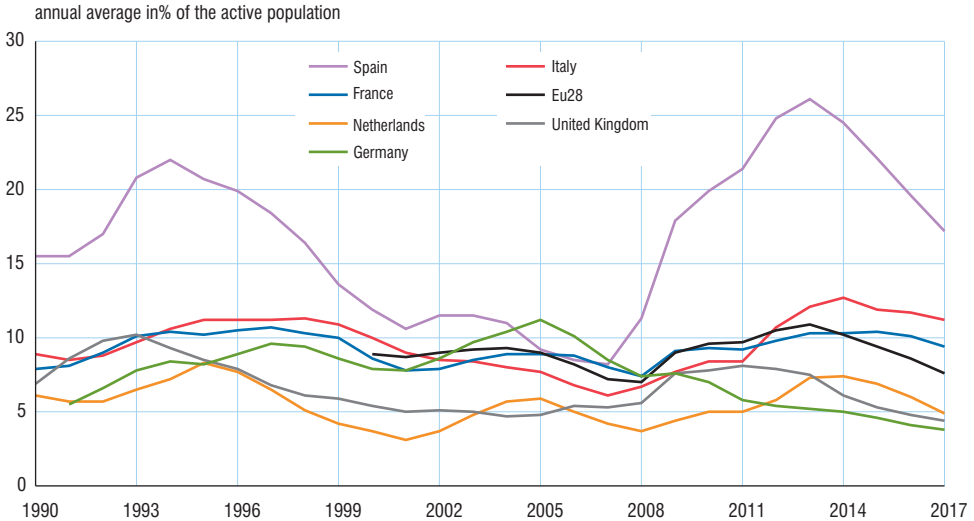
Among the main European economies, Spain and, to a lesser extent, Italy are the EU countries that have suffered the most from the crisis: the unemployment rate in Spain peaked at 26.1% in 2013, while in 2014 Italy's peaked at 12.7%.

By contrast, since 2005 the German unemployment rate has fallen to one of the lowest levels. The Hartz labour market reforms in Germany, carried out from 2003 to 2005, partly account for this decline [Bouvard *et al.*, 2013; Hartung *et al.*, 2018]. The reforms covered three areas: strengthening support for the unemployed, reducing taxes on labour and significantly reducing replacement incomes. The wage moderation seen since the mid-1990s is also thought to have contributed to the decline [Daussin-Benichou and Sala, 2013].

In France, the decline seen in most European countries has been slow to appear. The unemployment rate has been relatively flat compared to other countries, falling very gradually from 2015 onwards.

1. Composition of the European Union at the time of writing this book, *i.e.* 28 member states.

1. Changes in the Unemployment Rate as Defined by the ILO in the Main Economies of the European Union between 1990 and 2017



Coverage: people aged 15 to 74.

Sources: Eurostat, Labour Force Survey.

Though applying to all EU countries, the decline in the unemployment rate has occurred at very different rates, with wide disparities remaining in 2017: the Czech Republic and Germany have the lowest unemployment rates in the EU, while Greece and Spain have the highest rates. France ranks among the six countries with the highest rates of unemployment², with a rate of 9.4%, well above the average for EU countries (7.6%) (Figure 2).

The recent decline in the unemployment rate within the EU and France is expected to be accompanied by an increase in wages and inflation, with the relationship between the two variables theoretically following a Phillips curve (Box 2). However, in France, as in the EU, since the beginning of the recovery in 2015, characterized by a general decline in unemployment, wages have been rising slowly, well below the pre-crisis pace.

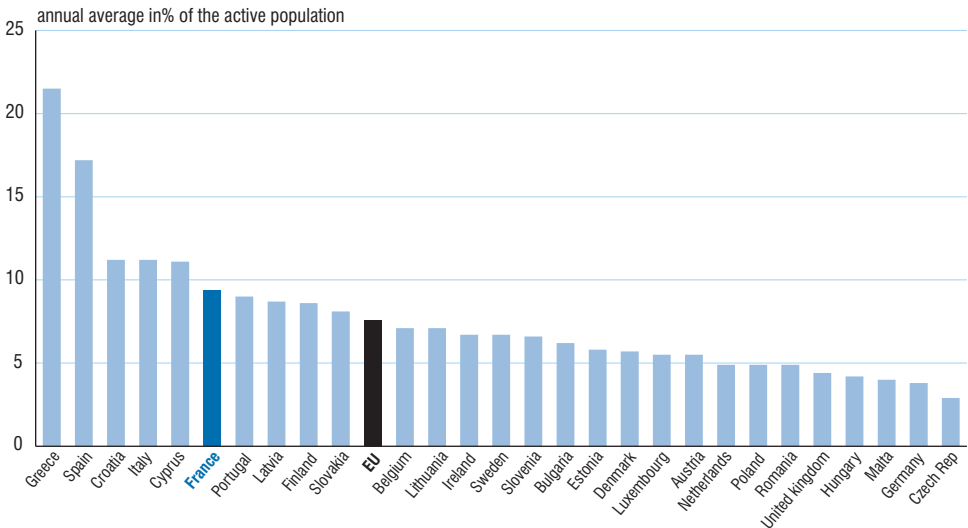
The fact that the unemployment rate does not take into account a continuum of situations between unemployment, underemployment and inactivity, which are also more widespread than in the past, is one of the reasons given for the disconnection between unemployment and wage changes.

In France, in addition to the 2.6 Million People Unemployed, 3.0 Million People Want to Work or Work More

The International Labour Organization (ILO) provides a strict definition of unemployment that ignores some of the interactions that may exist with employment (casual work, **under employment**) or inactivity. Some individuals want to work but are classed as **inactive**, either because they are not immediately available for work or because they are not actively

2. The major Southern European countries rank top: Greece, Spain, Croatia, Italy and Cyprus.

2. Unemployment Rate as Defined by the ILO in 2017



Coverage: people aged 15 to 74.

Sources: Eurostat, 2017 Labour Force Survey.

seeking work. However, they are close to the labour market since they can return to work quickly, particularly during an economic recovery phase³, thus making up the **unemployment halo** (Box 1).

In addition, a second component – underemployment – includes people **working part-time**, wanting to work more hours, available to do so and looking for another job, whether actively or not. Underemployment also includes people in technical or partial unemployment.

For example, in 2017 in France, in addition to the 2.6 million who were unemployed as defined by the ILO, 3.0 million people wanted to work or work more but were not counted as unemployed. In total, an average of 5.7 million people aged 15 to 74 were, at any given time in 2017, **facing restrictions** on the labour market, representing 18.7% of the working population in the broad sense⁴ in this age group [Picart, 2018]. This approach, known as “cross-sectional”, complements the insights provided by the unemployment rate. It can also be enriched to account for changes in status during the same year. For example, Picart [2018], using a dynamic approach, shows that 31.6% of the working population in the broad sense experienced a period of restricted work during 2017⁵.

In the remainder of this dossier, which focuses on the first “cross-sectional” approach, the term **labour underutilisation** will generally be used, largely for international comparison purposes, the term being in widespread use [International Labour Organisation, 2013 ; European Central Bank, 2017].

3. In particular, when the economic situation is favourable, people in this position may again meet the criteria for unemployment by actively seeking employment or by becoming available again. This is what is known as the “flexion effect”.

4. That is to say by including the unemployment halo.

5. Coverage across metropolitan France, people aged 15 to 64.

The Phillips Curve

In 1958, A.W. Phillips found an inverse relationship between the unemployment rate and the change in nominal wages based on British data over the period 1861-1957. Subsequently, the relationship found by Phillips was extended to the relationship between the unemployment rate and inflation.

In periods of falling unemployment, firms are faced with lower labour availability. As a response, they offer higher wages to attract workers. The link with inflation is related to the behaviour of firms, which, in order to maintain their margins, pass on their higher labour costs to consumers, which then feeds a potential increase in wage claims (second-round effects) [Bank for International Settlements, 2017]. The process as a whole corresponds to what is known as the Phillips curve, a decreasing relationship between the unemployment rate and wages.

It follows that the recent decline in the unemployment rate within the European Union (EU) and in France should, in theory, be accompanied by an increase in wages and inflation. However, since the beginning of the recovery in 2015, characterised by a general decline in unemployment, wages in France have increased slowly: between 2000 and 2008, gross wages and salaries grew at an average annual rate of 4.1%; rising to 2.2% between 2015 and 2017¹.

Although the Phillips relationship is not in question, the literature agrees that the curve representing wage changes as a function of the unemployment

rate has tended to flatten [Berson *et al.*, 2018; Quévat and Vignolles, 2018]. The disconnection between unemployment rate trends and wage trends may be linked to the fact that the unemployment rate does not take into account a *continuum* of situations between unemployment, inactivity and underemployment – situations that involve different dynamics. The restrictive nature of unemployment as defined by the ILO excludes a significant proportion of people who want to work but who are not considered as unemployed and who represent potential sources of rapidly available labour.

A first simple analysis, which involves comparing the correlations between wage trends on the one hand and the unemployment rate or labour underutilisation rate on the other, may suggest a more robust Phillips relationship with the underutilisation rate in some European countries. Over the period 2010-2018, while the correlation between the labour underutilisation rate and wage trends² is almost identical to the correlation obtained with the unemployment rate for the whole of the EU, a country-by-country analysis shows, by contrast, that it is significantly higher in the case of France, Italy and the Netherlands (*Figure*).

The identification of a more robust Phillips relationship, for all the countries studied, would nevertheless require more in-depth work using detailed and long-term data, particularly if we want to test its validity on sub-populations (by age, sex or even qualifications, etc.).

Correlations of Unemployment Rate and Underutilisation Rate with Quarterly Wage Changes in the Main EU Economies between 2010 and 2018

as a %

	Underutilisation Rate	Unemployment Rate
European Union	- 70	- 69
Germany	- 37	- 38
Spain	- 23	- 22
France	- 79	- 59
Italy	- 63	- 52
Netherlands	- 30	- 21
United Kingdom	- 61	- 58

Coverage: people aged 15 to 74.

Sources: Eurostat, Labour Force Survey and labour cost index.

1. INSEE, annual national accounts.

2. Here, wage trends are approximated using the Eurostat labour cost index (LCI), based on its “wages and salaries” component. For France, the data are drawn from the French Central Agency of Social Security Organisations (in French, *Agence centrale des organismes de sécurité sociale*, or Acoss), the Labour Force Activity and Employment Conditions (*Activité et conditions d'emploi de la main-d'œuvre*, or Acemo) survey, the French Directorate for Research, Studies and Statistics (DARES) and the annual Labour Cost and Wage Structure surveys (*Enquête sur le coût de la main-d'œuvre et la structure des salaires*, or Ecmoss).

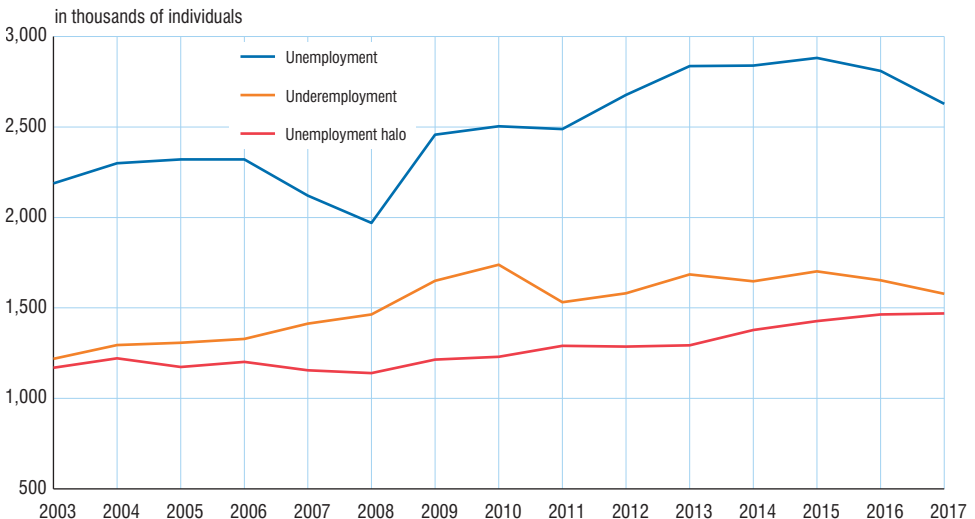
In France, the Unemployment Rate and the Other Components of Labour Underutilisation follow Different Dynamics

Underemployment and the unemployment halo are governed by dynamics different from that of unemployment. During the pre-2008 crisis in France, while unemployment was on the decline, reaching a historical low level of 2.0 million people, underemployment was on the rise and the halo was roughly stable (Figure 3). Between 2009 and 2015, the three components increased almost in concert, despite a one-off decline in underemployment between 2010 and 2011.

Over the more recent period, since the peak recorded in mid-2015, unemployment has tended to decline, while the number of underemployed totalled 1.7 million in 2015 and the unemployment halo reached its highest level in 2017, at 1.5 million inactive people.

In France in 2017, the average proportion of underutilised labour in the total population aged 15 to 74 was 12.2% (Figure 4). To be comparable with the notion of unemployment rate as defined by the ILO, underutilised labour is viewed as a proportion of the active population plus the halo. This concept is also useful for international comparisons since the dynamics of the halo as a proportion do the total population are affected, for the oldest age groups, by significantly different retirement ages from one country to another⁶. Finally, in France, compared to the active population increased by the halo, the 18.7% of the workforce facing restrictions in 2017 breaks down into 8.7% in unemployment, 5.2% in underemployment and 4.8% in the unemployment halo.

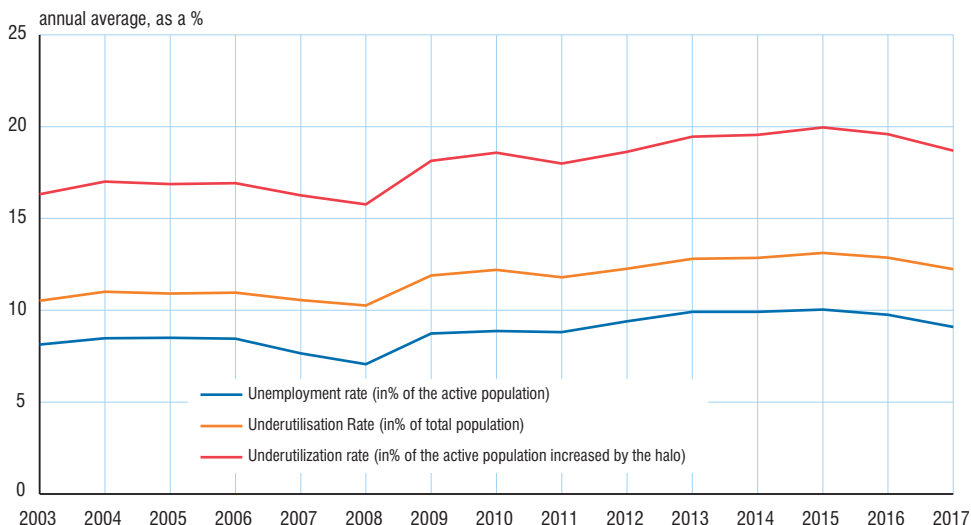
3. Changes in the Components of Labour Underutilisation in France between 2003 and 2017



Coverage: France, household population, people aged 15 to 74.
Sources: INSEE, Employment surveys.

6. The Bureau of Labor Statistics (BLS) in the United States also measures underutilisation relative to the working population plus the halo (U6).

4. Changes in the Unemployment Rate and Labour Underutilisation Rate in France between 2003 and 2017



Coverage: France, household population, people aged 15 to 74.

Sources: INSEE, Employment surveys.

In the EU in 2017, Labour Underutilisation Affected 15.0% of the Active Population plus the Halo

By measuring the proportion of the labour force facing restrictions, the situation of France is only slightly less unfavourable than if we only use the unemployment rate as defined by the ILO, with France ranking among the seven countries with the highest underutilisation rates in the EU, between Finland and Portugal (*Figure 5*).

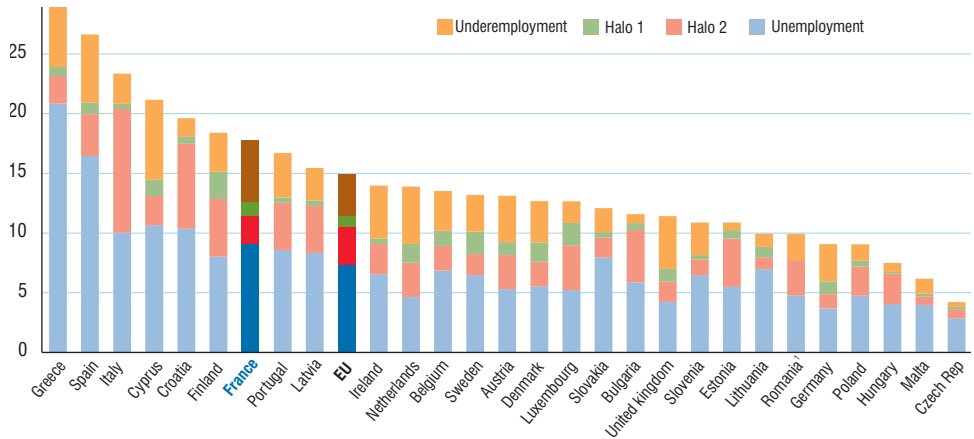
According to Eurostat data, in 2017, France's underutilisation rate stood at 17.7% of the increased working population⁷, almost 3 points higher than the European average (15.0%). In particular, France has a higher proportion of underemployed (5.2% compared to 3.5% in the EU), while the proportion of the halo of unemployment is lower (3.5% compared to 4.1%). The Czech Republic has the lowest underutilisation rate (4.2%) while Greece has the highest (29.2%).

Underemployment is High in Spain, the Netherlands, the United Kingdom and Austria

Taking into account the entire pool of underutilised labour, significant changes are found in the rankings of EU countries. Countries with relatively favourable unemployment rates rank lower. This is particularly true of the Netherlands and, to a lesser extent, Germany, the United Kingdom, Denmark, Austria and Ireland. By contrast, other countries, including Poland, Slovenia

7. Eurostat data for France differ slightly from INSEE data due to coverage differences (*Box 1*).

5. Labour Underutilisation Rates in the European Union in 2017



1. Halo 1 data for Romania are unavailable.

Coverage: people aged 15 to 74.

Notes: the active population is increased by the unemployment halo.

Sources: Eurostat, 2017 Labour Force Survey

and Slovakia, see their positions improve. However, there has been little change in the overall hierarchy, with the Czech Republic remaining at the top of the ranking and Greece at the bottom.

The less favourable position of the Netherlands is explained in part by the significant proportion of underemployment, with this component contributing 4.8 points to the underutilisation rate in 2017, compared to 3.5 points on average across the EU. The high level of underemployment in the Netherlands is explained in part by the significantly higher proportion of people in part-time work compared to other European countries: in 2017, part-time workers accounted for 50.5% of the total workforce, compared to 20.2% on average across the EU. In addition, with the crisis, various precarious forms of employment have emerged, made possible, in particular, by the reform of the Dutch labour market in the mid-1990s⁸ (Box 3).

The case of the UK is explained by an increase in the use of internal flexibility since the 2008 crisis, which has led to downward adjustments in working hours and wages.

In Austria, the high labour underutilisation rate is more related to a long-term imbalance. Like France, underemployment is high and varies little over time, affecting some groups of the population more than others, including women, unskilled workers and the elderly. The Austrian labour market is characterised by a high degree of segmentation, with a predominantly male and skilled population and various groups in precarious situations [Employment Policy Council, 2015].

Spain has the highest underemployment rate. Having been severely affected by the crisis, part-time work in Spain almost doubled between 2008 and 2013. The increase in underemployment reflects the decline in the number of hours worked, facilitated by more flexible regulations on part-time work, amid a sharp slowdown in economic activity [Banco de Espana, 2017]. However, since 2015, underemployment has been gradually declining as the economy recovers.

8. Flexible forms of employment are far more varied than in France and are not limited to fixed-term and temporary contracts. For example, the recent reforms have led to the development of on-call work and of permanent and fixed-term contracts without contractually agreed working hours [Employment Policy Council, 2015].

Changes in the Labour Underutilisation Rate and its Components in the European Union since the 2008 Crisis

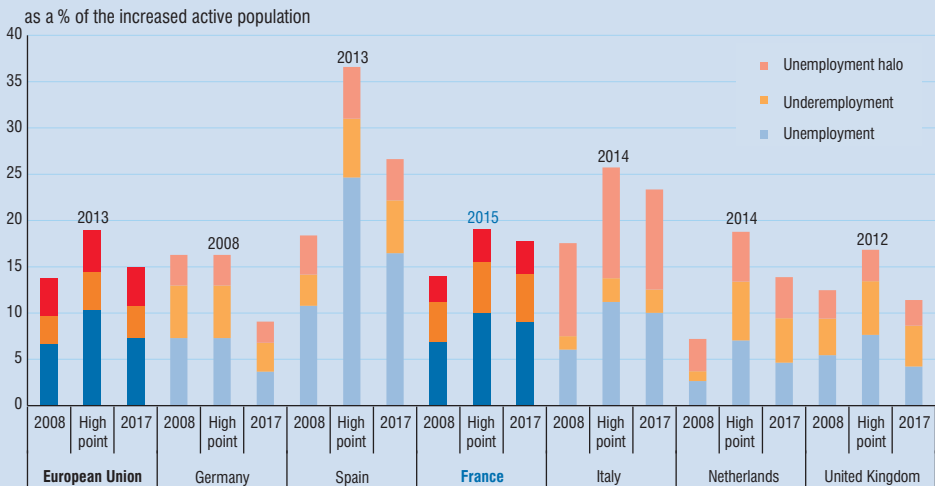
Over time, the components of labour underutilisation show different dynamics. In most countries, while the unemployment rate reached a historical peak between 2013 and 2015, the other components have declined only moderately since 2015 or even increased (Figure). This may partly account for the Phillips curve – in other words, the limited response of wages to the decline in the unemployment rate, pointing to persistent labour market imbalances.

Among the main European economies, we find evidence of specific national labour underutilisation dynamics between 2008 and 2017. Because of the differing trends between unemployment and

the other components of labour underutilisation, national unemployment and labour underutilisation rates reach peaks in different years. On average across the EU, as in France, Spain and Italy, the decline in labour underutilisation rates since their peaks (recorded between 2013 and 2015) is primarily a reflection of the decline in unemployment, the other components having declined less markedly or even stagnated in the case of the halo in France.

Germany stands out because of the decline of all labour underutilisation components (the peak being 2008). Lastly, the United Kingdom and the Netherlands¹ have seen a significant decline in underemployment.

Components of Labour Underutilisation in the Main Economies of the European Union



Coverage: people aged 15 to 74.

Notes: the active population is increased by the unemployment halo.

Sources: Eurostat, Labour Force Survey.

1. Some countries have seen significant breaks in series that can bias the analysis. Examples of this include underemployment in the Netherlands and halo 2 in France.

A Large Halo of Unemployment in Italy and Finland

Other countries are characterised by a large halo of unemployment. Examples include Italy, where the total halo represents 10.8% of the increased labour force and, to a lesser extent, Croatia (7.7%) and Finland (7.1%). These countries stand well above the EU average (4.1%).

In Italy in 2017, more than 3 million people wanted to work but were considered inactive since they were not actively seeking work (**halo 2**). This high figure is a reflection of the effect of discouraged workers, who represent a significant subset in Italy [Nemore, 2018]: in times of economic downturn, job seekers stop their job search. However, since 2015, the halo of unemployment has been declining, partly as a result of the reform of the Jobs Act, whose objective, among others, was to make active labour market policies more effective (*Box 3*).

In addition to having a high proportion of halo 2 in labour underutilisation, Finland has the highest proportion (2.3%) of people wanting to work and actively seeking work but not available to do so within two weeks (**halo 1**), ahead of Sweden (1.9%) and Denmark (1.6%). This peculiarity of Nordic countries is probably due in large part to the more developed system of support for the unemployed compared to other EU countries, with such provision targeting the long-term unemployed and the least skilled in particular.

Young Women with Low levels of Education are the Most Affected by Labour Underutilisation

Overall, the labour underutilisation rate is higher among women and declines with age. On average across the EU, underutilisation stands at 30.3% among 15-24-year-olds, more than twice that of the older segments of the population (13.6% among 25-54-year-olds and 12.2% among older persons aged 55 to 74). In France, the gap is even greater (36.1%, 16.1% and 14.2%, respectively) (*Figure 6*).

In Europe in 2017, the average labour force underutilisation gender gap was 4.6 points. The gap is most pronounced among people of intermediate age (5.6 points for the 25-54 age group), but lowest among youth (1.5 points). Greece, Spain, Italy, Croatia, France and the Netherlands almost invariably rank first among countries with the widest gender gaps, regardless of age group. However, the reasons for these gaps vary widely: in France, Spain and the Netherlands,

6. Labour Underutilisation Rate by Sex and by Age in 2017

as a % of the increased active population

	Women				Men				Whole			
	15-24 years	25-54 years	55-74 years	Whole	15-24 years	25-54 years	55-74 years	Whole	15-24 years	25-54 years	55-74 years	Whole
EU	31.1	16.6	13.7	17.4	29.6	11.0	11.0	12.8	30.3	13.6	12.2	15.0
France	38.1	19.5	15.8	20.6	34.4	12.9	12.6	15.1	36.1	16.1	14.2	17.7

Coverage: people aged 15 to 74.

Notes: the active population is increased by the unemployment halo.

Sources: Eurostat, 2017 Labour Force Survey.

9. Enhanced support for the unemployed was introduced in 2007 in Sweden with the “Job and Development Guarantee” and in 2015 in Denmark with the employment reform [Employment Policy Council, 2015]. During their training period, job seekers are no longer classed as active as defined by the ILO since they are no longer immediately available to take up employment.

underemployment is the main cause of inequality, while the halo ranks top in Italy and unemployment comes first in Greece (Figure 7).

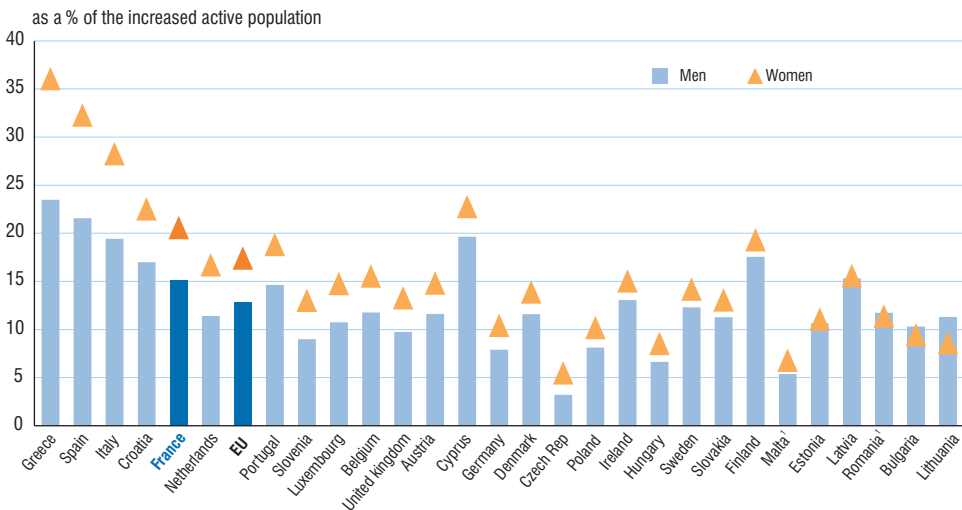
Beyond unemployment, which represents the main component of labour underutilisation among both men and women within the EU, the second most significant component is halo 2 (discouraged workers, accounting for 20.4% of underutilised labour), while among women underemployment (28.6% of underutilised labour) ranks top. However, France deviates from the European average since underemployment ranks second (after unemployment) in the make-up of labour underutilisation regardless of gender.

The labour underutilisation rate also decreases with the level of education : on average across the EU, the underutilisation gap between unskilled workers and the most highly skilled workers is 17.7 points. France is one of the six countries with the widest gaps (Figure 8).

Here too, regardless of the level of education, women are more likely to be affected by labour underutilisation (Figure 9). By contrast, Austria and Sweden have lower underutilisation rates among women than among men, including among low-skilled workers (levels 0 2) and the most highly skilled workers (levels 5 8).

This finding confirms that the difficulties to return to work or to increase one's number of hours worked affect individuals differently depending on their characteristics, with such barriers also varying from one country to another [Fernandez et al., 2016]. To reduce these constraints,

7. Labour Underutilisation Rate by Sex in 2017



1. Data on halo 1 not available for Malta and Romania.

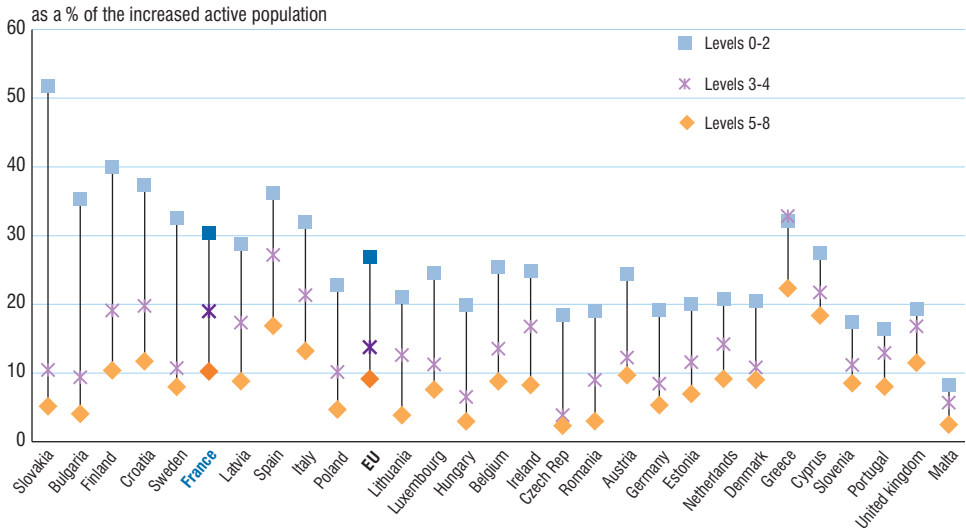
Coverage: people aged 15 to 74.

Notes: the active population is increased by the unemployment halo.

Sources: Eurostat, 2017 Labour Force Survey.

10. Eurostat data draw a distinction between three levels of education: levels 0-2 include pre-primary education, primary and lower secondary education; levels 3 and 4 correspond to upper secondary and post-secondary non-tertiary education; levels 5-8 correspond to higher education.

8. Labour Underutilisation Rate by Level of Education in 2017



Coverage: people aged 15 to 74.

Notes: the active population is increased by the unemployment halo.

Eurostat data draw a distinction between three levels of education: levels 0-2 include pre-primary education, primary and lower secondary education; levels 3 and 4 correspond to upper secondary and post-secondary non-tertiary education; levels 5-8 correspond to higher education.

Sources: Eurostat, 2017 Labour Force Survey.

9. Labour Underutilisation Rate in 2017 by Sex and by Level of Education Attained

as a % of the increased active population

	Levels 0-2		Levels 3-4		Levels 5-8	
	Women	Men	Women	Men	Women	Men
EU	31.7	23.3	16.8	11.3	10.9	7.3
France	35.1	26.6	23.6	15.2	11.7	8.5

Coverage: people aged 15 to 74.

Notes: the active population is increased by the unemployment halo.

Eurostat data draw a distinction between three levels of education: levels 0-2 include pre-primary education, primary and lower secondary education; levels 3 and 4 correspond to upper secondary and post-secondary non-tertiary education; levels 5-8 correspond to higher education.

Sources: Eurostat, 2017 Labour Force Survey.

some countries could focus their efforts on young people in general (Italy, Greece, Spain) or more specifically on unskilled youth (Sweden), while others could focus on women, particularly the youngest and least educated (Southern European countries). ■

Definitions

Unemployment as defined by the International Labour Organization (ILO) applies to any person who meets all three of the following criteria: not in employment, i.e. not having worked, even for an hour, during the reference week; being available to take up employment within two weeks; having carried out activities to seek employment in the previous month or having found a job starting within the next three months.

The **unemployment halo** includes individuals who are inactive as defined by the ILO and who want to work but are not classed as unemployed as defined by the ILO either because they are not immediately available for work (**halo 1**) or because they are not actively seeking work (**halo 2**). The second category includes discouraged workers. Unlike INSEE, Eurostat only uses the first two components of the halo based on the assumption that the latter category is further away from the labour market. The working population includes people who are in employment or unemployed. Conversely, the inactive population includes people who are not in employment and who are not deemed to be unemployed.

Underemployment includes **part-time workers** who want to work more hours and are available to do so. Part-time work is recorded on the basis of workers' self-reported data. Underemployment as defined by the ILO applies to people who have a part-time job and who want to work more hours and are available to do so, as well as people who have unintentionally worked less than usual (technical or partial unemployment). Eurostat data exclude technical unemployment from underemployment.

Labour underutilisation (or underutilised labour, also described as “workers **facing restrictions**”, includes unemployed persons who want to work (in unemployment or unemployment halo situations) and persons in part-time work wanting to increase their work hours and available to do so (underemployment situations).

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