The growth of precarious employment in Europe: Concepts, indicators and the effects of the global economic crisis

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Abstract. Since the 1970s, the reorganization of production and neoliberal "flexibilization" have made employment increasingly precarious in the developed economies. Examining the concept of precarious employment, the author focuses on two of its dimensions – insecurity and poverty – which he uses to construct a "precariousness index". Based on Eurostat data for 1995–2015, he then tracks the growth of precarious employment across the EU-15 and assesses the impact of the 2008 global economic crisis in this respect. While precarious employment generally increased after the crisis, this trend was driven more by poverty in the most deregulated labour markets and more by insecurity in the southern European countries.

n all developed economies "standard employment" is declining in favour of "flexible" employment. The term "standard" or "typical" employment is understood to refer to:

Wage work which is performed within a formalised employer–employee relationship (i.e. under a statute or a contract of indeterminate duration concluded within the framework of a collective agreement), is stable (possibly offering career prospects), is full-time (thus a basis for participation in collective life and social identity), provides the essential part of the family income, depends on a single employer, is performed at a specific workplace and is specifically assigned to the individual concerned (Caire, 1989, p. 75).¹

Thus, while this traditional form of employment is gradually disappearing (Carnoy, 2000; Standing, 2000, p. 118), the proportion of workers with "flexible" or "atypical" contracts is increasing (i.e. part-time, casual and ownaccount workers, or those with contracts for specific tasks or services, etc.). This trend has been confirmed by the OECD (2004–09 and 2013).

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¹ Similar definitions can be found in Pélissier (1985) (cited in Caire, 1989, p. 75); Mükenberger (1985), Leighton (1986) and Puel (1980) (see Büchtemann and Quack, 1989, p. 109); and Castells (2000, p. 286).

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Although this new model of work organization dates back to the crisis of Fordism in the 1970s and 80s, attempts have been made to justify its subsequent development in terms of the need for countries to become more competitive in response to globalization and "financialization" of the economy, by means of an adaptable, mobile workforce even when this was not dictated by technological change.

In the European Union (EU), this process began around the time of German reunification in 1990; it was then deepened by the implementation of the Maastricht Treaty in the 1990s and further strengthened by the Economic and Monetary Union and the fifth EU enlargement in the 2000s. This succession of events had two important consequences for competitiveness: first, it increased total labour supply and, second, the eurozone States could no longer resort to currency devaluations to increase their competitiveness. The first of these consequences resulted in a generalized reduction in wages, while the second – compounded by the oversupply of labour – has led to reliance on "internal devaluations" based on "structural" reforms and the "flexibilization" of workers' rights and conditions of work.

The global economic crisis of 2008 exacerbated this process. Labour market flexibilization was already under way in some countries (in the United Kingdom under New Labour up to 2007, and in Germany during the period 2003–05). Yet, it was the crisis that caused such reforms to spread to the peripheral countries – Portugal, Ireland, Greece, Spain and Italy – where they were pursued in conjunction with austerity policies. The main advocates of this course were Germany, the European Commission, the European Central Bank and the International Monetary Fund. As will be shown below, one of its most perverse results has been to increase job insecurity. In France, such labour reforms were introduced in August 2016 by means of a fast-track procedure, without a parliamentary vote.

Since the 1980s, flexibilization has globally gained more ground in those labour markets that were already considered "flexible" – e.g. Australia, Canada, the United Kingdom and the United States – than in the more "rigid" markets of, say, Japan, continental Europe and the Nordic countries (Carnoy, 2000). In the more flexible labour markets, the outcome has been low or negative wage growth (albeit with comparatively lower unemployment), while the less flexible labour markets have seen wages keep pace with productivity, but at the cost of higher levels of unemployment. As a result of the reforms, however, the labour markets of continental Europe are now also becoming more flexible, following the Anglo-Saxon trend, with similar effects.²

The term "flexible" has positive connotations, unlike its antonym, "rigid". This contrast has provided the basis for the theoretical and ideological discourse that has been constructed around the concept of flexibility (see, for example, Alaluf, 1989, p. 252, note 5; Miguélez, 1995; Duell, 2004). However,

 $^{^2}$ See the ILO's Global Reports on wages at: http://ilo.org/global/research/global-reports/global-wage-report/lang--en/index.htm.

while flexibility has contributed to reducing unemployment in many European countries since the mid-1990s (at least up to the 2008 financial crisis), a significant and increasing proportion of jobseekers are being forced to accept "flexible" employment.³ This explains why many employment contracts are described as "contingent" in the Anglo-Saxon countries.

"Contingent work" is an expression coined by Audrey Freedman at a 1985 conference on employment security. It refers to "conditional and transitory employment relationships as initiated by a need for labour – usually, because a company has an increased demand for a particular service or product or technology, at a particular place, at a specific time" (reported in her testimony of 19 May 1988, see United States, 1988, p. 35). When contingency pundits claim that patterns of employment are changing, what they are really referring to is the increase in involuntary part-time employment since the 1980s, the increase in casual work and consultancy contracts (mainly through the development of business services) since the 1990s, and the recent tendency to cut jobs in times of economic growth (see Tilly, 1996, cited in Carnoy, 2000, p. 103, footnote 14; Szabó and Négyesi, 2005; Burgess and Connell, 2006). The combination of these trends is indeed bringing about fundamental changes in the employment relationship and in "standard" full-time employment, making work more insecure, more conditional, more transitory, and ultimately more precarious.

The proliferation of contingent or "atypical" jobs is exacerbating labour market segmentation which, as first described by Doeringer and Piore (1975), refers to the existence of significant pockets of precariousness in labour markets. Moreover, other authors have warned that such adverse labour market conditions could also have the effect of making all jobs more precarious (e.g. Rubery, 1989; Alaluf, 1989). The underlying reasoning assumes a general deterioration of conditions of work and employment protection, as well as lower real wages, thereby adding the dimension of working poverty to the concept of precarious work.

Thus, as stated by Recio, precarious work is in fact the obverse of labour flexibility. "Whereas flexibility is presented as a strategy for business efficiency and adaptability to the economic cycle, the concept of precariousness acknowledges the social costs incurred by part of the workforce as a result of flexibility policies" (2007, pp. 2–3).⁴

Precariousness, however, is not an inescapable corollary of flexibility. If true, this would imply technological determinism. The literature broadly distinguishes two main types of flexibility: the first is based on the training and participation of workers, wage incentives and employment security; the

³ Eurostat data thus reflect the growth of underemployment: between 1996 and 2015, the proportion of employees in involuntary temporary employment grew by 39.76 per cent in the EU-15; the proportion of those in involuntary part-time employment grew by 138.5 per cent; and the proportion of those in self-employment, by 23.33 per cent. See http://ec.europa.eu/eurostat/statistics-explained/index.php/Employment_statistics [accessed 6 December 2016].

⁴ For an in-depth analysis of the relationship between flexibility and precarious employment in Europe, see Duell (2004).

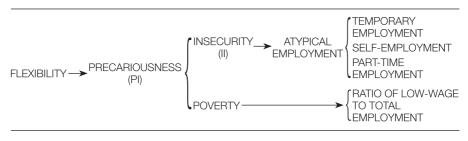


Table 1. Precarious employment in the EU-15: A conceptual framework

second is based on the deterioration of conditions of work, with low wages and high levels of precariousness. These two types of labour flexibility are variously referred to as "internal" vs "external" flexibility; "cooperative capitalism" vs "contingent capitalism"; an "American version of team production" vs an "American version of lean production"; the "best way" vs "secondary way"; "complex" vs "simple" flexibility (Coriat, 1993, p. 232; Derber, 1994, p. 15; Appelbaum and Batt, 1994, p. 7; Carnoy, 2000; Cano, 2000, p. 37).

Regardless of what it is called, precarious employment in the EU-15 is the result of the second type of labour flexibility, which most countries have introduced under pressure from the shifting power relationship between capital and labour. In this sense, factors pertaining to the reorganization of production and institutional models become the explanatory variables of the spread of such flexibility, as reflected in changing labour management practices and industrial relations systems, new forms of employment and the weakening of social protection systems.

This article aims to analyse how this is affecting Europe. Based on the conceptual framework presented in table 1, it consists of two main sections. The first discusses the concept of precarious work as a consequence of flexibility in Europe, focusing on two dimensions of precariousness, namely, insecurity and poverty. The second section examines the growth of precarious employment in Europe both before and after the global economic crisis (1995–2015) by means of a *precariousness index (PI)* that incorporates those two dimensions. The PI is thus based on an *insecurity index (II)* – which uses data on atypical work from the European Labour Force Survey (LFS) to measure job insecurity – and on the share of low-wage employment from Eurostat's Structure of Earnings Survey (SES), as a measure of in-work poverty. The full extent of precariousness in each country is then calculated as the sum of these two indicators, adjusted by the country's unemployment rate. The article ends with a number of conclusions.

The concept of precarious employment

Neither the concept nor the reality of precarious employment is new. According to the European Commission, concern over precarious work dates back to the 1950s, when several countries realized that the social protection systems established after the Second World War excluded entire sectors of the population (European Commission, 2005, p. 33). In a study on Sicily, published in 1964, Sylos Labini formulated a definition of "precarious employment" based on the notions of contractual and wage instability and the lack of visibility as to the future. Such employment was understood to include involuntary parttime work, short-term contracts and work performed without a contract and social protection (Sylos Labini, 1964). At the time, this author associated precarious employment with developing economies and the primary sector. But since the 1980s, it has extended to a wider range of economic activity in Europe (Rodgers and Rodgers, 1989). As mentioned above, this has been a result of policies to promote flexibility.

However, since not all flexible work is precarious, it is more rigorous to identify precarious work with a specific type of flexible work – i.e. so-called contingent work, whose defining feature is its involuntary nature or, more precisely, "lack of control", i.e. insecurity (Burchell, 1989, p. 245). Indeed, according to Cano (2000, p. 26), precariousness stems from "workers' lack of control and autonomy to plan their lives around their work, which – either because of entry and exit characteristics (conditions of employment) or because of the associated working conditions and wages – involves a high degree of uncertainty and dependency". Prieto (1991, p. 203) cites a definition by Bailleau expressed in similar terms: "precariousness is the inability to plan the future for lack of control over the present". This shows a marked asymmetry in the power relations that characterize the new framework for the employment relationship, with precariousness being understood in terms of the vulnerability of labour against capital.

The concept of precarious employment is thus not limited to the impossibility of obtaining full-time permanent employment, as it may also embody other characteristics. Cano (2000, pp. 25–26) initially defines the concept strictly in terms of temporary or casual employment. However, he then goes on to incorporate aspects of wage and working conditions into his analysis. Precarious employment then amounts to a direct or indirect deterioration of all working conditions. In other words, precarious jobs would be characterized by lower wages, worse contractual conditions and a higher risk of abusive practices on the part of firms (Segura et al., 1991, p. 39; Duell, 2004). From this point of view, precariousness is associated with employment situations that do not provide the worker with an adequate level of current and future well-being and security.

Recalling the above two dimensions of precarious work, Ramos Díaz defines a job as precarious not only when it is insecure and/or involves less than full-time hours, but also when it provides insufficient income, below 66 or 50 per cent of the median wage (2004, p. 103). Thus, precarious (or contingent) employment becomes a complex phenomenon compounding two work-related penalties: insecurity and poverty.⁵

⁵ According to Standing (2011, p. 9), working poverty and insecurity of employment are two features of "the precariat", though they do not suffice to define it.

In the same vein, the ILO also states that: "Although a precarious job can have many faces, it is usually defined by uncertainty as to the duration of employment, multiple possible employers or a disguised or ambiguous employment relationship, a lack of access to social protection and benefits usually associated with employment, low pay and substantial legal and practical obstacles to joining a trade union and bargaining collectively" (ILO, 2011, p. 5).

Acknowledging the difficulties posed by the absence of a statistical category of precarious employment and the heterogeneity of this concept across national contexts, the European Commission, for its part, has adopted an operational definition based on the four dimensions identified by Rodgers (1989), namely, the degree of uncertainty over job tenure, the degree of workers' individual and collective control over their work, the adequacy of wages and wage increases, and protection – by law, collective organizations or practice – against unfair dismissal, discrimination and unacceptable working conditions (European Commission, 2005).⁶

Precarious employment is typically benchmarked against standard employment (ibid., p. 36) and the rights and security that progressively became associated with it in the industrialized countries until the late 1970s. That security found expression in various aspects of work: in the labour market (full employment and cyclical unemployment), in employment (stability and protection against dismissal), and in the workplace, through standards on working conditions and hours, occupational safety and health protection, maintenance of skills, wages, representation and social protection (Standing, 1986, p. 113; 2000, p. 97; 2008, p. 17; and 2011, p. 10).

In this sense, precarious work can be identified on the basis of the dimensions mentioned above (Rodgers, 1989, p. 3), which embody all of the factors that have degraded that security. Based on Rodgers' work, Cano (2000, pp. 27–35), also highlights four inter-related dimensions that contribute to generating uncertainty, vulnerability and lack of control on the part of workers over their occupational and social trajectory.⁷

The first dimension of precarious work – the central dimension according to Cano (2004, p. 68) – is *insecurity regarding continuity of the employment relationship*. This is associated with different situations, namely, temporary jobs, dependent self-employment, clandestine employment, or "fragile" jobs threatened by a high risk of job loss. Insecurity over continuity of the employment relationship is a dimension of precarious work in so far as it makes it difficult for workers to exercise control over their occupational and social future and increases their vulnerability vis-à-vis the firm. However, this does not apply to jobs that are insecure by nature but that can be considered satisfactory according to other criteria, such as remuneration, social recognition or working conditions (Burchell, 1989, p. 226). This is where the criterion of the involun-

⁶ The authors of this report also provide an analysis of the concept of precarious employment, its applications in the social sciences, and its implications.

⁷ These four dimensions are also recognized by the ILO (2011, pp. 6–7).

tary nature of work is helpful in distinguishing precarious (or contingent) work from other work that, despite being insecure, is not involuntary.

The second dimension is that of *insufficient* wages because remuneration – i.e. the amount of wages or their guaranteed payment over time – largely determines a worker's standard of living, autonomy, control over his or her future, and social position. This form of precariousness is associated with jobs that reflect weak labour market attachment and do not enable those doing them to gain financial independence or even to be recognized as "workers" in the usual sense. This is the case with much part-time and casual employment, which leaves workers dependent on their family or on benefits. This dimension of precariousness also includes wage discrimination, whereby employers take advantage of the vulnerability of some workers to pursue discretionary, differentiated wage policies.

The third dimension of precariousness is *the deterioration of the employment relationship and workers' vulnerability*. These aspects are associated with sub-standard conditions (in terms of hours and intensity of work, promotion, health and safety, etc.) and workers' lack of control over these conditions. "[W]ork is more insecure the less the worker (individually or collectively) controls working conditions, wages, or the pace of work" (Rodgers, 1989, p. 3). Since the 1980s, the developed countries have experienced stagnation or flexibilization – not to say lowering – of the labour standards applicable in this regard, which has increased precariousness (see ILO, 2015).

The fourth and last dimension of precarious work is *the weakening of workers' social protection*, which has two significant aspects linked to deregulation.⁸ The first is the declining significance and flexibilization of legislation on working and employment conditions and industrial relations, coupled with the wider discretion given to employers in these areas. The second aspect is the insufficient coverage of public social protection schemes – particularly in regard to unemployment benefits and retirement pensions – which increases workers' uncertainty and vulnerability vis-à-vis market forces. With the welfare state in crisis, levels of protection have declined over the past 30 years, as a result of reforms of unemployment and retirement insurance systems (COE, 2015). At the same time, the eligibility requirements of these schemes have been tightened, with particularly adverse effects on temporary and part-time workers.

Conceptually, it is difficult to draw a clear distinction between precarious and non-precarious work, since the above dimensions of precariousness affect all forms of employment to varying degrees and in different ways (Cano, 2004). Yet those dimensions of precariousness are particularly pronounced in some types of employment, such as atypical jobs, "fragile" jobs (with a high risk of being cut even if they are based on stable contracts), and jobs characterized by deteriorated working conditions.

⁸ For trends in employment protection legislation in the OECD countries, see OECD (2013) and http://stats.oecd.org/?lang=en; on legislation and conditions of work in Europe, see http://www.eurofound.europa.eu/ef-themes/ [accessed 6 December 2016].

Thus, the identification of precarious work is certainly not a straightforward matter. The simple dichotomy between secure, standard jobs and precarious, atypical jobs can indeed be misleading. In practice, the security and protection of standard employment when it comes under threat can be an equally important issue; and, although atypical jobs tend to be more precarious than standard jobs, this is not always the case.

Precarious employment in the EU-15, 1995–2015

As mentioned earlier, the growth of precarious employment in western Europe is associated with the introduction of new organizational models and changes in the institutional framework that have brought about a gradual transformation of corporate structures and labour relations systems since the 1980s. This section examines the evolution of precarious employment in the period 1995– 2015, from before until after the 2008 crisis. It shows that precariousness has become more acute in all countries since the crisis, even though it may take different forms. Indeed, national institutions still exhibit important differences, not only in terms of their legal frameworks, but also in terms of the organization of social actors, management traditions, the cultural attitudes of employers and workers, etc. Also, organizational models are partly constrained by the production characteristics of each industry, which are in turn influenced not only by technology, but also by product characteristics, demand type, and market and product regulation. As Recio points out (2007, p. 3), precariousness is characterized by the heterogeneity of the forms it can take. This is why it can only be understood by taking into account its historical context and accompanying social processes. This heterogeneity has also been recognized by the ILO (2011) and by the European Commission (2005), and it will be taken into account in the method of measurement proposed below.

Based on Ramos Díaz's (2004) definition – which, as mentioned, characterizes precarious work in terms of insecurity and poverty variables – and the analytical model he proposes (idem, 2000), I will now examine the impact of the 2008 crisis on precarious employment in the EU-15. To this end, I compare the situation in 1995–2007 with that in 2008–15 by means of the statistical data available and the conceptual framework introduced above (see table 1).

Precariousness arising from insecurity (atypical forms of employment)

Methodology and data

According to the definitions discussed above, the concept of precarious employment was constructed in contrast to so-called standard employment (Rodgers, 1989, pp. 5–6; Standing, 2011, p. 32; European Commission, 2005). While available statistics fail to capture all of the dimensions considered earlier, they do at least make it possible to review the evolution of the various forms of atypical employment. The partial overlap of precarious and atypical employ-

ment has already been recognized internationally (e.g. ILO, 2010, p. 35, footnote 34). As Recio (2007, p. 7) argues, the type of contract is indeed the most obvious analytical category that comes to mind if one tries to describe precarious employment using statistical data. Hence the risk, when considering a person's contractual status alone, of equating it with a case of precarious work. This risk was taken into account in developing the indicator presented below.

This first dimension of precarious work - insecurity - is measured using the forms of atypical employment recorded in the Eurostat Labour Force Survey (LFS). According to the LFS, the two main forms of atypical wage employment are temporary work and part-time work, since these forms of employment are those that differ the most from typical or standard (i.e. permanent and full-time) employment. The typology of atypical employment is expanded to include self-employment as well. Admittedly, not all such employment can be considered atypical, since some of it is stable and well paid. Yet its steady increase since the 1980s suggests that a large share of ownaccount and self-employed workers are more likely to have been "pushed" by unemployment than "pulled" by the appeal of small-scale entrepreneurship (Rodgers, 1989, p. 4). As Rubery (1989, p. 54) points out, there has also been an increasing tendency for the self-employed to be own-account workers without employees, also suggesting that the growth of self-employment may owe more to the spread of precarious forms of employment than to a surge of entrepreneurial spirit.

Figures 1, 2 and 3 show the relative incidence of each of these three forms of employment across the EU-15. Evidently, there are countries where atypical employment mainly takes the form of temporary work (Spain and Portugal, Finland until 2007 and the Netherlands since then), part-time work (the Netherlands, the United Kingdom, Sweden, Denmark and Germany) and/or self-employment (Greece, Italy and Portugal). In other countries there is less atypical employment, and it is distributed more evenly.

Comparing these data with those presented by Ramos Díaz (2000, pp. 24–25) for the period 1983–1997, it can be seen that the trends he identified more than a decade ago have continued despite the slight shifts recorded in 2008–15 which, beyond the effects of the crisis, probably reflect measures taken by various countries to reduce the most prevalent forms of atypical employment. In some cases there was not only a reduction in absolute terms but also partial substitution by other forms of atypical employment. For example, in 1995–2007 and 2008–15 there was a decrease in temporary work, part-time work and self-employment in Spain, the Netherlands and Portugal, respectively. Yet this was accompanied by an increase in part-time work – including on temporary contracts – in Spain,⁹ temporary work in Portugal and the Netherlands, and self-employment in the Netherlands.

⁹ The Spanish Government has been promoting this form of employment since the promulgation of Royal Legislative Decree No. 16/2013. Also, the lower incidence of temporary contracts since 2008 can largely be traced to the destruction of such employment as a result of the crisis, particularly in the construction industry.

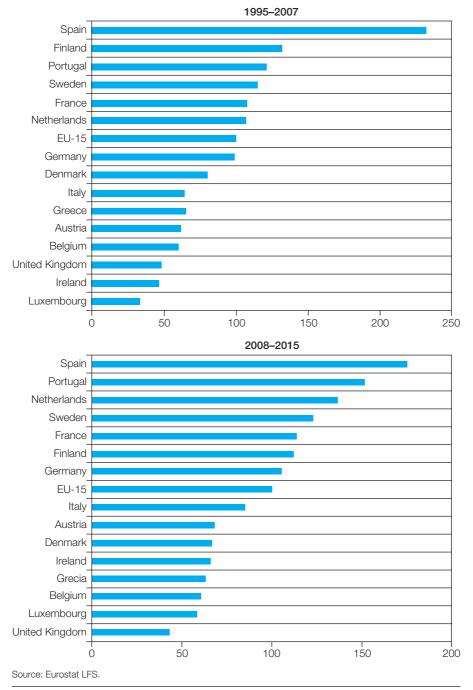
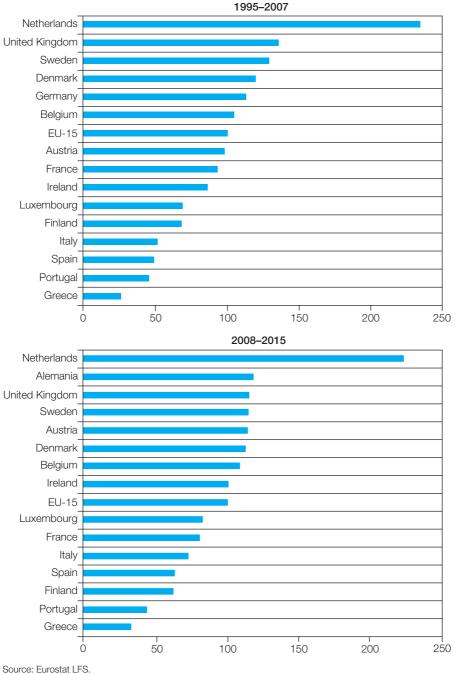
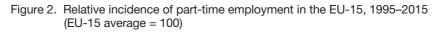


Figure 1. Relative incidence of temporary employment in the EU-15, 1995–2015 (EU-15 average = 100)





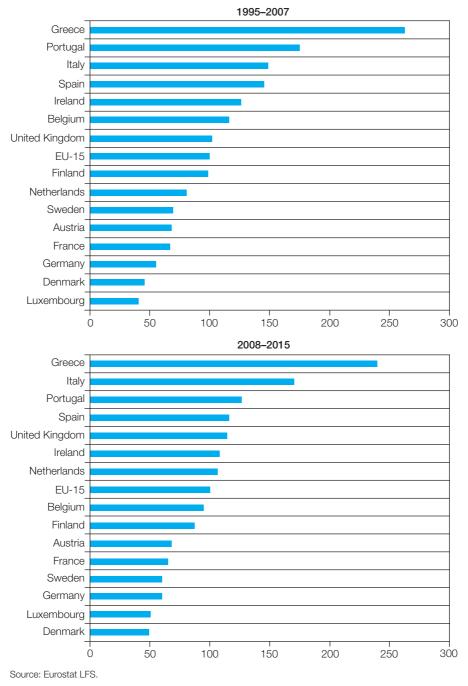


Figure 3. Relative incidence of self-employment in the EU-15, 1995–2015 (EU-15 average = 100)

First, following the methodology proposed by Ramos Díaz (2000, pp. 25–26), my insecurity index (II) is constructed on the basis of the different forms of atypical employment described in the LFS, namely, part-time employment, self-employment and temporary employment. These forms of employment, together with internships, are what Standing (2011, pp. 13–16) refers to as "varieties of precariat". They are used as proxy variables.¹⁰

Second, so as not to confuse atypical forms of employment with insecurity or – in the words of Recio (2007) – to equate a worker's mere contractual status with precariousness, the data for the above categories of atypical employment were broken down in order to distinguish work of a "contingent" or involuntary nature. Specifically, in the "self-employed" category, only those without employees are considered; in the "part-time" category, only those in involuntary part-time employment are considered;¹¹ and in the "temporary" category, only those who would prefer permanent jobs are considered.

Third, in contrast to Ramos Díaz's original approach, the II gives the same weight to all forms of atypical employment (equal to 1), since none of them can be considered to be more insecure than the others. The prevalence of a particular form of atypical employment in each country depends on national characteristics (i.e. the country's employment model). Indeed, firms and governments make the labour force precarious by giving precedence to different criteria – primarily hiring costs – which vary according to the different types of contractual arrangements available in each country. In Spain, for example, the dominant form is temporary employment (a "culture of temporary work" is even referred to in Toharia, 2005, pp. 130-133), whereas in the Netherlands it is part-time work, and in Italy, Greece and Portugal, self-employment. Interestingly, in countries where there are no major differences in labour costs between standard and non-standard employment, such as the United Kingdom and Ireland (or, for that matter, the United States), very few jobs are specifically classified as atypical (Rodgers, 1989, p. 4; Castells, 2000, p. 283; Standing, 2011, pp. 15 and 34). This explains both the low levels of atypical employment in these countries and the fact that precariousness is defined primarily by low wages, as will be shown below. Standing (2011, p. 34) calls this "casualisation by stealth".

Another argument in favour of using the same weighting for all forms of atypical employment is that their prevalence may vary across countries over time, substituting one for another depending on employment policies, business requirements, opportunity costs, hiring practices in other countries, etc. Examples include the cases of Spain, the Netherlands and Portugal, as mentioned above. If different weights were assigned to each form of atypical employment,

¹⁰ Ramos Díaz's (2000) incremental insecurity scale actually distinguishes between openended part-time contracts, temporary full-time contracts, temporary part-time contracts and selfemployment. But owing to LFS data limitations, this disaggregation cannot be replicated here, and temporary part-time workers have to be double-counted for the purposes of the II.

¹¹ For the Netherlands, this sharply brings down the level of insecurity because of the tiny proportion of involuntary part-time employment featured in the LFS data.

some types of contract would be overestimated and some underestimated, resulting in higher or lower country scores without justification, according to the prevalence of each form of atypical employment. This would also mean disregarding differences based on country characteristics (and costs). Hence my reliance on an implicit weighting of the II that derives solely from the empirical data (or the availability of statistics).

Fourth and last, the II is calculated by averaging the values of two distinct periods, 1995–2007 and 2008–15. This choice of dates is dictated by several considerations. To begin with, 1995 is the first year for which the LFS data are available for all EU-15 countries.¹² In addition, since the purpose of this article is to study the impact of the global economic crisis on the precariousness of employment, it seemed reasonable to compare aggregates for the pre- and post-crisis periods, with 2008 – when the crisis began – being the year of transition and structural change. Finally, 2015 is the last year for which the required data were available at the time of writing.

Being a composite index intended to measure European diversity in atypical forms of employment, the II is expressed as follows:

II = t + s + p

where *II* is the sum of the total employment shares of involuntary temporary employment (*t*), self-employment, considering only own-account workers without paid employees (*s*), and involuntary part-time employment (*p*).¹³

Results

The II values for the EU-15 are reported in table 2, showing an aggregate increase of almost 4 percentage points (3.9) between the two periods, i.e. before and after the 2008 crisis. However, a group of countries stands out for having above-average levels of insecurity, namely, Spain, followed by Greece and Portugal and, in the second period, Italy. Another group of countries displays scores around the European average (Germany, France, Belgium, Sweden and Finland). And a third group of countries features the lowest levels of insecurity (United Kingdom, Ireland, Netherlands, Denmark, Austria and Luxembourg). In the second period, Belgium moves towards this last group of low insecurity, while Ireland and the Netherlands shift in the opposite direction.

To a large extent, these groups match the "models of flexibility" described by Miguélez and Prieto (2009, pp. 283–284) in their study of employment relationships in Europe. Thus, the group of intermediate countries scoring around the EU-15 average, together with those continental countries where the levels of insecurity are the lowest, match the "controlled flexibility" model, in which job insecurity is also "controlled". This model sustains characteristic

 $^{^{12}}$ Indeed, 1995 marked the fourth EU enlargement, with the accession of Austria, Finland and Sweden.

¹³ For the EU-15 as a whole, t, s and p respectively accounted for 45, 40 and 15 per cent of total atypical employment in 1995–2007. The proportions were 40.6, 36.58 and 22.81 in 2008–15.

	1995–2007	2008–2015
EU-15	22.0	25.9
Spain	40.7	38.8
Greece	32.4	34.6
Portugal	28.0	34.0
Italy	23.5	34.9
Netherlands	17.7	27.7
Ireland	17.5	24.4
France	20.9	23.5
Germany	19.5	23.0
Sweden	21.8	22.9
Finland	24.4	22.2
United Kingdom	14.7	18.8
Belgium	20.4	17.6
Denmark	14.2	15.4
Austria	14.1	14.8
Luxembourg	9.0	13.0
Source: Author's calculations ba	sed on Eurostat LFS data.	

Table 2. Employment insecurity index (II), EU-15, 1995–2015

features of the traditional employment model, including a high employment rate, a low unemployment rate, and the voluntary nature of a large share of atypical employment.

By contrast, the group of countries with the highest levels of insecurity (Spain, Greece and Portugal), which represents the "uncontrolled flexibility" model, is characterized by low employment rates, high unemployment and wide inequalities against a backdrop of weak democratic control. As mentioned above, Italy has also been shifting gradually towards this model, particularly since the 2000s, with the weakening of its employment protection legislation and the breakdown of its "traditional model" (Piazza and Myant, 2015, p. 7). Italy's transitional position could well foreshadow what might happen to France in the longer term, following the labour reforms it introduced in 2016.

The third model is that of "variable flexibility", in which the level of insecurity is also variable. The differences between countries conforming to this model are quite striking. The United Kingdom has a high employment rate and low unemployment, but it also features a considerable share of involuntary atypical employment, some of it without social protection. Given its low rate of insecurity, the United Kingdom may appear to be a stable country in terms of forms of employment, but its flexibility is based on wages (Recio, 2001; Rubery, 2005, cited in Miguélez and Prieto, 2009) and low severance payments (Standing, 2011, p. 34). Together with Ireland, the Netherlands and Germany, the United Kingdom is indeed one of the countries with the highest

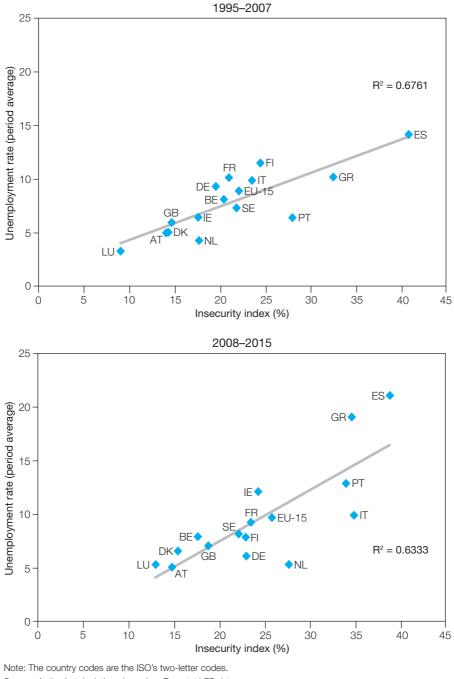


Figure 4. Unemployment and employment insecurity in the EU-15, 1995–2015

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Source: Author's calculations based on Eurostat LFS data.

shares of low-wage employment in the EU-15, according to the EU's Structure of Earnings Survey (SES).¹⁴

According to the above models, higher (or lower) insecurity is associated with high (or low) unemployment rates. This points to a strong positive correlation between these variables (figure 4), which reflects the employment policies pursued in western Europe (and in the United States) since the 1980s in order to reduce unemployment. Aimed at improving the numbers, these policies follow a purely quantitative approach with little regard to the qualitative considerations – remuneration, stability, conditions, protection, rights, guarantees, etc. – that ought to be an integral part of any jobcreation strategy (see, for example, OECD, 2014, Chapter 3). Thus, as shown in figure 4, atypical employment has prevailed in those countries where unemployment has been higher.

However, those policies have resulted in further contradictions. The excessive share of certain forms of atypical employment has now become a policy challenge in itself. Accordingly, in line with the quantitative neoliberal approach, efforts are being made to remedy this situation through policies that attempt to "fix" the statistics by substituting some forms of precarious employment for others. However, some researchers – e.g. Rubery (see Miguélez and Prieto, 2009, p. 284) – have intuited that the British model may foreshadow the new European model, i.e. a model of low regulation (or deregulation) which, irrespective of contract type, generates a high proportion of low-wage jobs and weakens social support policies. I now therefore turn to the second key dimension of precariousness, namely, poverty.

Precariousness arising from poverty

Methodology and data

As noted above, work is also precarious when it provides insufficient income, say, less than 66 or 50 per cent of the median wage (Ramos Díaz, 2004). Indeed, such income levels fall within the category of "low wages".

Eurostat defines low wages as wages that amount to two-thirds (66 per cent) or less of national median hourly earnings. The relevant data for the EU are collected every four years through Eurostat's SES, a large-scale enterprise-based survey that provides detailed information on the structure and distribution of wages in Europe. The SES data refer to all employees (except apprentices) working in firms with ten or more employees and all industries except for the primary sector (NACE Rev. 2, section A), public administration, defence and social security (NACE Rev. 2, section O) (see Bezzina, 2012, p. 1).

¹⁴ In Ireland and the United Kingdom, employers have relied on migrant labour to pay lower wages since 2004 when several central and eastern European countries joined the EU (see Jones, 2011; see also Standing, 2011, pp. 143–144).

Results

Table 3 shows the shares of low-wage employment as percentages of total wage employment in 2006, 2010 and 2014. Over this period, the average proportion of low-wage employment remained relatively stable in the EU-15 as a whole, declining slightly from 13.21 to 13.03 per cent between 2006 and 2010, and then to 12.55 per cent in 2014, i.e. an overall decrease by 0.66 percentage points. In all three years, the countries with the highest shares of low-wage employment – over 20 per cent – were the United Kingdom, Ireland and Germany, while the Nordic countries, along with France and Belgium, had the lowest shares.

Between 2006 and 2010, the percentage of low-wage employment increased in seven countries (Germany, Spain, Italy, Austria, Finland, Sweden and the United Kingdom) and decreased in the other eight. It is noteworthy that it increased in several countries where the percentage was already above the European average (Germany, Spain, Austria and the United Kingdom) and decreased in those that were below the European average (Belgium, Denmark, France and Luxembourg), thereby further widening the gap between countries with high and low shares of low-wage employment. The countries that recorded the largest increases, regardless of their position with respect to the European average, were Italy (2.09 percentage points) and Germany (1.25 points), while the sharpest declines occurred in Portugal (–4.64 points) and Greece (–2.91 points).

Between 2010 and 2014, the percentage of low-wage earners increased in six countries (Ireland, Germany, the Netherlands, Denmark, France and Sweden) and decreased in the rest (the 2014 data are not available for Greece). In this period, the highest increases were recorded in France (2.73 percentage points) and in the Netherlands (1.06 points); and the biggest decreases again occurred in Portugal (–4.05 points), followed by Italy (–2.92 points).

Over the entire period, i.e. from 2006 to 2014, some countries saw an increase in their share of low-wage employment in the first four years and a decrease in the last four, while others experienced the reverse, such that there was no significant change overall. This was the case in the United Kingdom, Ireland, the Netherlands, Austria, Italy, Denmark, and Finland. However, notable increases were seen in France (1.68 points), Germany (1.50) and Spain (1.22), and notable decreases in Greece (-2.91),¹⁵ Belgium (-3.03) and Portugal (-8.69). The fact that low-wage employment decreased in two of the countries hardest hit by the crisis – i.e. Portugal and Greece – is probably due not so much to workers moving into higher-paid employment as to an increase in unemployment and inactivity in the years considered.¹⁶ These workers were indeed the most severely affected by the crisis.

 $^{^{15}}$ Since the data for 2014 were not available at the time of writing, this decline refers to the period 2006–10 only.

¹⁶ According to the LFS data for the period 2006–14, unemployment increased by 6.4 percentage points in Portugal (from 8.1 to 14.5 per cent) and by 17.6 points in Greece (from 9.1 to 26.7 per cent).

				Percentage po	oint change
	2006	2010	2014	2010-2006	2014–2010
EU-15	13.21	13.03	12.55	-0.18	-0.48
United Kingdom	21.77	22.06	21.26	0.29	-0.80
Ireland	21.41	20.66	21.56	-0.75	0.90
Germany	20.99	22.24	22.48	1.25	0.24
Portugal	20.72	16.08	12.03	-4.64	-4.05
Netherlands	17.74	17.46	18.52	-0.28	1.06
Greece	15.73	12.82	_	-2.91	_
Austria	14.19	15.02	14.76	0.83	-0.26
Spain	13.37	14.66	14.59	1.29	-0.07
Luxembourg	13.18	13.06	11.94	-0.12	-1.12
Italy	10.27	12.36	9.44	2.09	-2.92
Denmark	8.31	8.17	8.61	-0.14	0.44
Belgium	6.82	6.37	3.79	-0.45	-2.58
France	7.13	6.08	8.81	-1.05	2.73
Finland	4.75	5.85	5.28	1.10	-0.57
Sweden	1.77	2.51	2.64	0.74	0.13
Source: Eurostat SES,	2006, 2010 and	2014.			

Table 3. Proportion of low-wage employment in total wage employment in the EU-15, 2006, 2010 and 2014

As low wages are defined in relation to national median hourly earnings, the reference threshold (66 per cent) varies by country. Cross-country differentials in median earnings thus provide useful information. As shown in table 4, Denmark and Ireland had the highest median gross hourly wages in all three years, followed by Luxembourg (except in 2014 when Sweden's median wage was higher); while the lowest median wages were paid in Portugal, Greece (no data for 2014) and Spain. Between 2006 and 2014, the median wage increased in all countries except the United Kingdom, where it fell by -0.23 euros (i.e. 1.54 per cent). The countries with the highest increases in absolute terms were the Nordic countries: Denmark (4.56 euros), Sweden (4.18 euros) and Finland (3.55 euros). In percentage terms, the leaders were Sweden (29.27 per cent), Finland (25.93 per cent), Netherlands (25.39 per cent) and Denmark (21.91 per cent). Within the EU-15, the widest median wage gap is between Denmark and Portugal, with a ratio of almost five to one (25.37 euros in Denmark versus 5.12 in Portugal in 2014).

International differences in the median wage are clearly determined by countries' per capita income levels: the higher (or lower) the level of per capita income, the higher (or lower) the median wage (figure 5). However, the resulting differentials between national median wages do not explain the disparate shares of low-wage employment among the different countries. As can be seen in figure 6, the share of low-wage employment in 2014 was unrelated to the level of the median wage in each country. Indeed, country situations

	2006		2010		2014	
	Median	Threshold*	Median	Threshold*	Median	Threshold
Denmark	20.81	13.73	24.56	16.21	25.37	16.74
Ireland	16.72	11.04	18.23	12.03	20.16	13.31
Luxembourg	15.61	10.30	17.75	11.72	18.27	12.06
Belgium	14.27	9.42	16.42	10.84	17.31	11.42
Germany	14.42	9.52	14.9	9.83	15.3	10.10
Sweden	14.28	9.42	15.94	10.52	18.46	12.18
Jnited Kingdom	14.95	9.87	12.99	8.57	14.72	9.72
rance	13.13	8.67	13.64	9.00	14.8	9.77
Finland	13.69	9.04	15.96	10.53	17.24	11.38
Netherlands	12.76	8.42	15.36	10.14	16	10.56
Austria	11.4	7.52	12.69	8.38	13.78	9.09
taly	10.84	7.15	11.8	7.79	12.34	8.14
Spain	8.07	5.33	9.41	6.21	9.83	6.49
Greece	7.67	5.06	9.05	5.97	_	_
Portugal	4.71	3.11	5.06	3.34	5.12	3.38

Table 4.	Median gross hourly ea	arnings and low-wage	thresholds in the EU-15,
	2006, 2010 and 2014 ((in euros)	

vary widely, from high shares of low-wage employment in countries with high per capita incomes (Ireland) and intermediate per capita incomes (Germany, United Kingdom and the Netherlands), to low shares of low-wage employment in countries with high per capita incomes (Denmark) and intermediate per capita incomes (Belgium, Finland and Sweden).

However, these inconsistencies tend to be "corrected" when the "in-work at-risk-of-poverty" rate is substituted for the share of low-wage earners as the reference. This rate measures the percentage of workers whose equivalent disposable income is below the at-risk-of-poverty threshold, which stands at 60 per cent of the national median of equivalent available disposable income (after social transfers). Figure 7 shows a negative correlation between this rate and the level of income, such that the higher (or lower) the level is, the lower (or higher) the share of workers at risk of poverty.¹⁷

Obviously, the share of low-wage earners and the in-work at-risk-of-poverty rate are of different magnitudes, since the first refers to 66 per cent of the median gross hourly wage and the second, to 60 per cent of median disposable income. Also, the fact that the at-risk-of-poverty rate reflects the secondary

¹⁷ As might be expected, a similar relationship can be found between the in-work at-riskof-poverty rate and per capita income. Owing to space constraints, however, these results are not reported here.

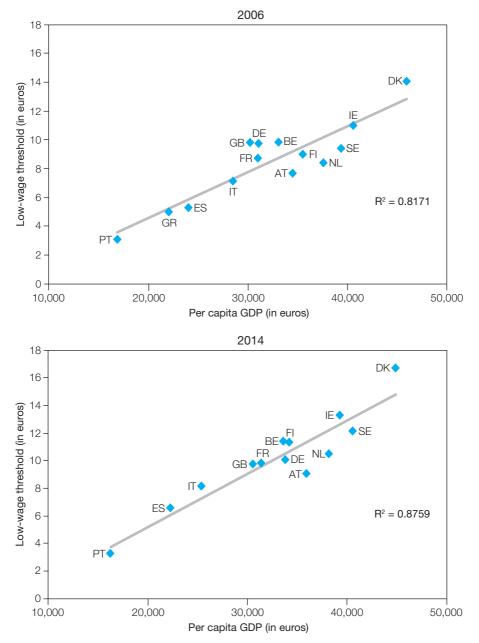
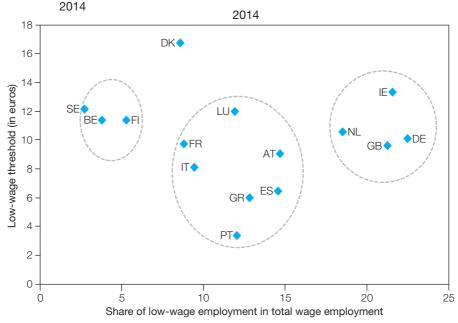
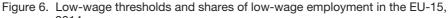


Figure 5. Low-wage thresholds and per capita GDP in the EU-15, 2006 and 2014

Notes: The low-wage threshold is 66 per cent of median gross hourly wages. The 2014 data for Greece are missing. Luxembourg is excluded on account of its low shares of the EU's GDP and population (0.4 and 0.14 per cent, respectively).

Source: Author's calculations based on Eurostat data from the SES and national accounts (NAMA).





Notes: The data for Greece refer to 2010. The low-wage threshold is 66 per cent of median gross hourly earnings.

Source: Author's calculations based on Eurostat SES data.

distribution of income justifies the choice of the "share of low-wage earners" as the variable that best captures in-work poverty, since it is directly linked to the labour market and reflects its (de)regulation.

Precariousness combining insecurity and poverty: The precariousness index (PI)

Based on the two dimensions of precariousness analysed above, and considering the strong correlation observed between atypical employment and unemployment, the indicator of precariousness used in this section is the sum of both variables – i.e. insecurity and poverty – adjusted by the unemployment rate, as follows:

$$PI = \frac{(II + UR) + LW}{100}$$

where *PI* is the precariousness index, *II* is the insecurity index, *UR* is the unemployment rate and *LW* is the share of low-wage employment. The denominator is 100, since all numerator indicators are given in percentages.

Table 5 ranks the EU-15 countries according to their PI (from highest to lowest) in the two periods considered. PI values of around 50 per cent or above indicate a considerable level of precariousness, which increased throughout

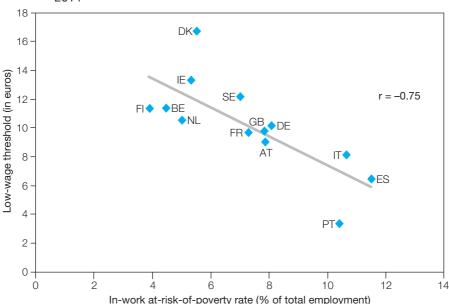


Figure 7. Low-wage thresholds and "in-work at-risk-of poverty" rates in the EU-15, 2014

Notes: The low-wage threshold is 66 per cent of median gross hourly wages. The 2014 data for Greece are missing. Luxembourg is excluded on account of its low shares of the EU's GDP and population (0.4 and 0.14 per cent, respectively).

Source: Author's calculations based on Eurostat SES and EU-SILC data.

the EU-15 during the period of the global economic crisis. In 1995–2007 only four countries had such high levels of precariousness (Spain, Greece, Portugal and Germany), whereas in 2008–15 their number had doubled (including also Ireland, Italy, the Netherlands and the United Kingdom). The countries with the highest levels of precariousness are those that suffered most from the effects of the crisis (Spain, Greece, Portugal, Ireland and Italy). Also, while the post-crisis period saw the PI increase in all of these countries and in the Netherlands and the United Kingdom, the PIs of the other countries remained relatively stable or even declined (as in the case of Belgium).

The PI is a linear combination of its two components – (II + UR) plus LW. Graphically, it provides a radial measure of the degree of precariousness of each country along a vector that radiates outwards from the intersection of the two scales. Combining the data on insecurity and poverty shown in table 5, figure 8 represents the results in such radial form. In line with Ramos Díaz's (2000, p. 28) classification, three groups of countries can be distinguished, corresponding to three types of labour market, especially in the post-crisis period.

The first type of labour market is characterized by high levels of insecurity and poverty (upper right quadrant of figure 8). This is the southern European model, encompassing Spain, Portugal and Greece, and in which Ireland

	1995–2007				2008–2015		
_	II + UR 1995–2007	LW 2006	PI		II + UR 2008–2015	LW* 2010–2014	ΡI
Spain	54.87	13.37	0.68	Spain	59.89	14.63	0.75
Greece	42.58	15.73	0.58	Greece	53.71	12.82	0.67
Portugal	34.34	20.72	0.55	Portugal	46.91	14.06	0.61
Germany	28.84	20.30	0.49	Ireland	36.50	21.11	0.58
Ireland	23.95	21.41	0.45	Italy	44.91	10.90	0.56
Italy	33.34	10.27	0.44	Germany	29.14	22.36	0.51
United Kingdom	20.57	21.77	0.42	Netherlands	33.10	17.99	0.51
Finland	35.88	4.75	0.41	United Kingdom	25.93	21.66	0.48
Netherlands	21.92	17.74	0.40	France	32.75	7.45	0.40
France	30.94	7.13	0.38	Finland	30.39	5.57	0.36
Belgium	28.48	6.82	0.35	Austria	19.90	14.89	0.35
Austria	19.12	14.19	0.33	Sweden	30.85	2.58	0.33
Sweden	29.10	1.77	0.31	Luxembourg	18.41	12.50	0.31
Denmark	19.28	8.31	0.28	Belgium	25.64	5.08	0.31
Luxembourg	12.32	13.18	0.26	Denmark	22.03	8.39	0.30
* For Oronoo, the	a a reachta a a	fara ta OC	10 II inc	oourity indoxy LID – un			

Table 5. Employment precariousness index (PI) in the EU-15, 1995–2015

* For Greece, the percentage refers to 2010. II = insecurity index; UR = unemployment rate; LW = low-wage share.

Source: Author's calculations based on Eurostat LFS and SES data.

and Italy can be included following the global economic crisis. Spain, Greece and Portugal have the worst scores in this group.

The second type of labour market is characterized by moderate levels of insecurity and poverty (lower left quadrants). It is the opposite of the previous model and comprises France, Belgium, Denmark, Sweden and Finland.

The third type of labour market is characterized by moderate insecurity and high poverty (upper left quadrant). This is the model in which the labour market is the most deregulated, the core countries here being Germany, the United Kingdom and the Netherlands, with Austria on the periphery. The United Kingdom, Germany and Ireland had the highest levels of poverty in the EU-15 in 2014. Germany's rapid shift into this group (from the previous model) is particularly noteworthy, and probably owes much to the labour market reforms it introduced in 2003–05.¹⁸ Ireland was also in this group during the period 1995–2007.

¹⁸ In Ramos Díaz's (2000, p. 28) model, which refers to the period 1983–97, and in Miguélez and Prieto's (2009, p. 283) study of the period 1975–95, Germany is associated with a model of moderate insecurity and poverty.

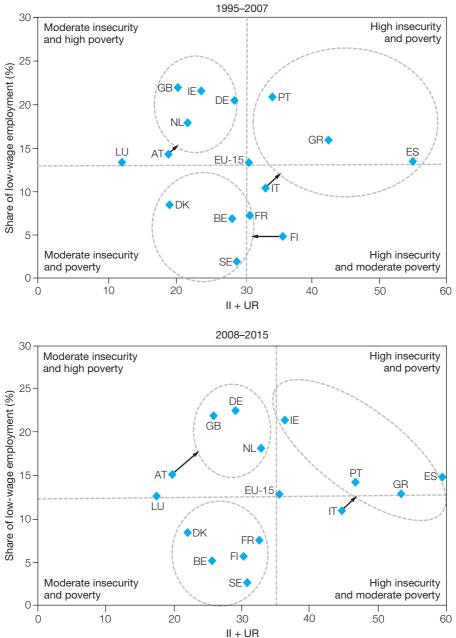


Figure 8. Radial representation of the employment precariousness index (PI) in the EU-15, 1995–2015

Note: The share of low-wage employment in Greece is based on data for 2010. Source: Author's calculations based on Eurostat LFS and SES data.

		- L	, .				-	- . ;				-	
		Employ	Employment rate	Unemployment rate	oyment	Minimum wage ^a (euros per month)	/age ^a nonth)	Gini coefficient (percentages)	ifficient ages)	Wage share c (percentages)	Wage share of GDP (percentages)	Hourly labour productivity (e	Hourly labour productivity (euros)
		1995– 2007	2008– 2015	1995– 2007	2008– 2015	1995– 2007	2008– 2015 ^b	1995– 2007	2008– 2015°	1995– 2007 ^d	2008– 2015	1995– 2007€	2008– 2015
Model*	EU-15	63.3	65.7	8.9	9.8			29.6	30.7	42.9	43.2	34.9	38.5
:	Portugal	66.7	64.0	6.3	12.9	413.69	553.58	36.9	34.5	43.1	40.6	14.9	16.9
High incecturity	Spain	56.7	58.2	14.2	21.1	555.24	740.73	32.8	33.8	41.9	42.5	28.0	30.5
and poverty	Greece	57.4	54.5	10.2	19.1	621.55	766.42	34.0	33.8	27.8	29.7	18.4	19.9
-	Italy	54.6	56.7	9.8	10.0			31.3	32.2	30.9	33.2	32.1	32.6
.H	France	62.0	64.1	10.0	9.3	1185.30	1390.79	28.0	29.9	43.0	43.9	40.8	45.3
Moderate	Belgium	59.2	61.9	8.1	8.0	1177.18	1441.53	27.9	26.4	41.4	40.7	43.0	45.8
and poverty	Denmark	75.8	73.9	5.1	6.6			22.7	26.7	55.2	56.1	48.2	53.0
	Finland	66.5	69.1	11.5	8.2			24.6	25.7	42.3	45.4	34.9	39.5
	Sweden	71.8	73.9	7.3	8.0			23.0	24.7	48.2	49.5	38.4	44.3
≡	United Kingdom	7.07	70.6	5.9	7.1	1076.87	1220.11	32.7	32.2	47.5	47.4	35.4	39.7
Moderate	Ireland	63.0	61.5	6.4	12.1	1158.28	1461.85	31.8	30.0	40.3	40.2	40.1	50.7
and high	Germany	65.2	72.3	9.3	6.1		1440.00	26.4	29.6	45.5	45.1	38.1	42.5
poverty	Netherlands	71.5	74.8	4.2	5.4	1221.93	1442.93	27.2	26.2	44.4	43.1	42.0	46.4
	Austria	67.8	71.0	5.0	5.1			25.6	27.5	45.0	44.7	34.3	39.4
	Luxembourg	61.9	65.3	3.3	5.4	1367.53	1786.79	27.0	28.5	46.5	47.7	57.3	59.7
* Based on Ramos Diaz (2000) land. ^d Data as from 1998 for Source: Author's calculations bs	lrel.	e H	ninimum w∈ 2007 data f data from th	ages in the or Belgium, ie LFS, the	second sen , 1998–2007 SES, the EL	^a Average of minimum wages in the second semester of each year in the period. ^b 2015 and. ^e 1999–2007 data for Belgium, 1998–2007 for Ireland, no 1998 data for Luxembourg. d on Eurostat data from the LFS, the SES, the EU-SILC and national accounts (NAMA).	year in the μ ο 1998 data f tional accoun	beriod. ^b for Luxemt ts (NAMA)	^b 2015 data only for Germany. mbourg. (A).	only for Gei		a up to 2(° Data up to 2014 for Ire-

Precariousness index	Indicator	Correlation coe	fficient (r)
		1995–2007	2008–2015
	Employment rate	-0.50	-0.58
	Unemployment rate	0.67	0.81
	National minimum wage*	-0.86	-0.79
PI	Gini coefficient	0.75	0.82
	Wage share of GDP	-0.54	-0.64
	Hourly labour productivity	-0.78	-0.69

Table 7. Correlation between the PI and labour market indicators, inequality and poverty in the EU-15, 1995–2015

* Portugal, Spain, Greece, France, Belgium, United Kingdom, Ireland, Netherlands and Luxembourg; Germany since 2015.

Source: Author's calculations based on Eurostat data from the LFS, the SES, the EU-SILC and national accounts (NAMA).

As shown in table 6, the countries in the first group have high unemployment rates, low employment rates, low minimum wages, high inequality, a low wage share of GDP and low productivity. These same indicators show inverse values in the second group of countries, i.e. those with moderate levels of insecurity and poverty. Lastly, the countries of the third group – characterized by moderate insecurity and high poverty – have low unemployment rates and high employment rates and minimum wages (like the countries of the second group), but they also feature relatively high levels of inequality and low productivity (though not quite as low as in the countries of the first group). All of these variables can be considered as indicative of the degree of in-work insecurity and poverty and, therefore, of precarious employment.

Moreover, as shown in table 7, the PI is strongly correlated with most of these indicators. Although the degree of correlation differs from one variable to another, some interesting conclusions can be drawn.

First, the correlations are generally strong, but they are stronger in the second period – i.e. after the crisis – than in the pre-crisis period, except for the minimum wage and productivity). This may be due to strictly methodological reasons (the number of observations in the first period being greater than in the second), to deeper structural reasons (e.g. the policies pursued by governments during the crisis), or to a combination of both. Second, it is interesting to note the PI's strong correlation with the minimum wage (in countries which have a minimum wage), the Gini coefficient, labour productivity and the unemployment rate (although the latter is included in the calculation of the PI). And finally, as expected, the PI consistently displays a positive correlation with the unemployment rate and the Gini coefficient, and a negative correlation with the remaining indicators (i.e. employment rate, minimum wage, GDP wage share and labour productivity).

Conclusions

As many authors have pointed out, "flexibilization" has been the most powerful driver of precarious employment across Europe in recent decades.¹⁹ Labour flexibility policies may differ from one country to another according to the characteristics of its particular employment model in terms of institutions, political culture, industrial relations, production specialization, etc. However, not a single country has been spared the political implications of the new model of work organization introduced largely in response to the demands of firms, and one of whose (sometimes unitended) social consequences has been precariousness.

The current model of labour flexibility is dictated by the need for technical flexibility inherent in the new production paradigm that emerged in the 1980s. Precariousness has since become the "other side of the coin" of flexibility (Recio, 2007). However, the two need not necessarily be linked; otherwise one would have to accept technological determinism. Precarious employment in the EU-15 is the result of the pursuit of an asymmetric, partial and peripheral flexibility strategy – variously termed "external", "low-cost", "bottom-up" or "simple" - which is driven by cost considerations and the underlying notion that labour is primarily but a cost and that it must therefore be made to bear the brunt of productive transformation by means of downgraded conditions of employment and wages. The most visible effect of this strategy has been the proliferation of so-called atypical forms of employment, encouraged by policies of deregulation aimed at promoting an adaptable and mobile workforce, which meant greater job insecurity. But precarious employment also translated into a progressive reduction of wages, which, in turn, has led to in-work poverty. As demonstrated here, the 2008 global economic crisis has intensified this trend.

This article has looked at the development and characteristics of those two dimensions of precariousness – insecurity and poverty – and their effects on the labour markets of the EU-15 countries, before and after the crisis. Its findings suggest that, although employment is subject to a variety of countryspecific regulatory frameworks, actual conditions of work and employment exhibit similarities across countries with similar levels of precariousness. The article provides a homogeneous framework for analysing disparities, using a two-dimensional precariousness index based on insecurity and poverty. This shows how employment precariousness has spread across the EU-15 (except in the Nordic countries) since the beginning of this century under the combined effect of atypical employment growth and declining wages, driven by the progressive deregulation of labour markets in the wake of the neoliberal labour reforms implemented in the different countries.

Based on the data used to calculate levels of insecurity and poverty, the PI thus provides a comprehensive picture of the patterns of precarious

¹⁹ See, for example, Coriat (1993), Rodgers (1989), Rubery (1989), Recio (2001 and 2007), Cano (2000) and Standing (1986 and 2011).

employment in the EU-15, before and after the global economic crisis. The results show that three labour market models can be distinguished, grouping countries according to the flexibilization policies they have pursued. Southern countries (Spain, Greece, Italy and Portugal) have high levels of insecurity and poverty; countries with a more deregulated labour market (Germany, Ireland, the Netherlands and the United Kingdom) have moderate levels of insecurity and high levels of poverty; and the Nordic countries, together with Belgium and France, have moderate levels of both insecurity and poverty.

From this overview, some more specific conclusions can be drawn. First, the results for the Nordic countries presumably show that their respective labour market models have been successful in containing the growth of precarious employment. These models, deriving from labour reforms implemented in the 1990s, are characterized by their combination of a high degree of flexibility with a high level of social protection – in other words, "flexicurity". The principles behind flexicurity – based on the "work first" strategy – have since 2008 inspired the European Council's Directives on employment and other European countries' labour market reforms. In the light of actual labour market outcomes, however, such legislative initiatives appear to have been nothing more than declarations of intent.

Second, there has been a striking increase in poverty in Germany and the United Kingdom, which could be explained by two factors. The first is labour market deregulation resulting from these two countries' pre-crisis reforms and the introduction of some extremely precarious forms of atypical wage employment, such as "mini jobs" (*Kurzarbeit*) in Germany and zero-hour contracts in the United Kingdom. The second factor is the drop in wages caused by the extraordinary surge in labour supply following the fifth EU enlargement. Indeed, western Europe – and Germany and the United Kingdom in particular – then became magnets for migrant workers from eastern Europe, partly as a result of the deregulation policies adopted by their respective governments.

Third, the analysis carried out in this article also shows that the PIs for the three types of labour market model are strongly correlated with other labour market, inequality and poverty indicators, highlighting two clear patterns that typically trap countries in a vicious circle that is hard to escape.

The first of these patterns is the strong positive correlation between precarious employment and unemployment, coupled with the strong negative relationships between precarious employment and the minimum wage (in countries that have one) and between precarious employment and productivity. These correlations suggest that, in countries with high unemployment rates, employment policies are based on purely quantitative criteria and, controversially, fail to take any account of job quality.

In order to be viable in the medium and long term, flexibility strategies cannot be limited to the mere exploitation of labour as a factor of production (quantitative measures); they must also guarantee the sustainability of "human resources" (qualitative measures). The erosion of wages and conditions of work will indeed end up constraining the growth of production itself, as reflected in the productivity levels and GDP wage shares of countries with high levels of precarious employment. Quantitative flexibility is therefore an extremely dubious means of competition, since it does not generally produce stable competitive advantages while generating inefficiency costs that can multiply, in a vicious circle of causality.

The second pattern is based on the strong correlation between precarious employment and inequality. With the exception of the Netherlands, the seven remaining countries that have high PIs – arising from insecurity, poverty or both – also display the highest levels of inequality, with Gini coefficients of approximately 30 per cent. Hence the question of cause and effect: does precarious employment generate inequality, or is it the other way round? Or is this yet another vicious circle of causality?

Moreover, both of the above patterns could be related in an even wider circle of causality because of the feedback effects of precariousness – driven by quantitative flexibility strategies and their implications for inequality.

While these questions are outside the scope of this article, future research in this area would be useful. However, the correlations identified here between precarious employment and the indicators of labour market performance, inequality and poverty strongly suggest that these measures do provide some indication – albeit partial – of the degree of precariousness of employment and that they could therefore be used as proxy variables for future investigation of these issues.

The PI is an extremely simple index that could be developed further, say, by incorporating one or more additional dimensions of precariousness in order to provide more robust results. Yet, despite its simplicity, it is an effective tool for labour market analysis that could usefully contribute to the design of employment policies.

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