

## AGAINST THE WIND. INDUSTRIAL RELATIONS IN SPAIN DURING THE GREAT RECESSION AND ITS AFTERMATH

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The Great Recession had a profound impact on the Spanish labour market. On the one hand, unemployment skyrocketed reaching 27% of the workforce at its highest. On the other hand, three different labour reforms were approved, aimed at deregulating and flexibilising the labour market. This paper explores the potential impact of one of such changes, the alteration of the hierarchy of collective agreements in favour of firm-level collective agreements, on wage inequality and temporality rates within the firm. According to our analysis of firm-level data of a large sample of Spanish firms, having a firm-level collective agreement correlates positively with higher wage inequality and higher temporality rate at the level of the firm. Thus, should one of the intended implications of the reform (the growth of firm-level collective bargaining) materialise, one of the consequences could be the growth of wage inequality and employment instability.

La Grande Recessione ha avuto un impatto significativo sul mercato del lavoro spagnolo. Da un lato, la disoccupazione è salita alle stelle, raggiungendo – nel suo picco massimo – il 27% della forza lavoro. Dall'altro lato, sono state approvate tre differenti riforme del lavoro finalizzate alla deregolamentazione e alla flessibilizzazione del mercato del lavoro. Il presente saggio esplora l'impatto potenziale di uno di questi cambiamenti – l'alterazione della gerarchia dei contratti collettivi a favore della contrattazione aziendale – sulla disuguaglianza salariale e sul tasso di rapporti di lavoro a tempo determinato all'interno dell'azienda. Sulla base della nostra analisi dei dati di livello aziendale di un ampio campione di imprese spagnole, il fatto di avere in essere un contratto collettivo di livello aziendale mostra una correlazione positiva con una maggiore disuguaglianza salariale e un più elevato tasso di rapporti di lavoro a tempo determinato a livello aziendale. Pertanto, qualora si concretizzasse uno degli effetti attesi della riforma (la crescita della contrattazione di livello aziendale), una delle conseguenze potrebbe essere l'incremento della disuguaglianza salariale e della precarietà dell'impiego.

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### 1. INTRODUCTION

The permanent high level of unemployment of the Spanish economy since the transition has led, almost since the enactment of the Labour Code in 1980, to a quasi-permanent state of labour regulation reform. Although the huge increase in unemployment of the period 2008-2013 (from 7% to 26%) was clearly a by-product of the Great Recession (Muñoz de Bustillo, 2014a and 2014b) and the collapse of construction, one of the most labour

intensive sectors of the economy<sup>1</sup>, the second (approved in 2010-2011 under a socialist government) and third packages (approved in 2012 under a conservative government)<sup>2</sup> of policy measures aimed at addressing the crisis included important elements of labour market deregulation. The rationale behind them, according to the proponents of the reforms, was twofold. On the one hand, measures were taken to reduce the existing employment protection gap between employees with open-ended contracts and those hired on a temporary basis, reducing the redundancy costs of the former and increasing the termination costs of the latter. The aim of such reform was to bring both types of contracts more in line with each other, reducing the incentives to hire employees on a fixed-term basis. On the other hand, measures were taken aimed at the flexibilisation and decentralisation of collective agreements. The purpose of these measures was to facilitate the adaptation of collective agreements to the specific changing situations of the firms operating in different economic contexts, as well as facilitating the use of other adjustment mechanisms than dismissals; in the words of one of the bills: ‘to prevent working conditions agreed in a collective agreement from “petrifying”’<sup>3</sup>.

The aim of this paper is to review the impact on the industrial relations system, of such reforms, focusing on the measures affecting collective agreements. With that purpose, the following section will briefly present the main characteristics of the collective agreements system in Spain before the reforms. In turn, Section 3 will present the main parameters of its reform. Section 4 will analyse the expected impact of one of the elements of the reform: the prevalence given to firm-level collective agreements. In order to do so, after a general review of the existing evidence regarding this issue, we will study, using the data of the last wave of the Structure of Earnings Survey (SES) (2014), the impact of having a firm-level collective agreements (versus a collective agreement at sectoral or higher level) on wage inequality and temporality rate at firm level. As customary, Section 5 will summarise the main conclusions of the paper.

## 2. A PRIMER ON THE SPANISH COLLECTIVE AGREEMENTS SYSTEM BEFORE THE GREAT RECESSION

At the risk of being too simplistic, before the Great Recession the Spanish collective agreements system could be summarised with the following bullets:

- automatic extension of collective agreements as a result of the application of the principle of *erga omnes*. Once a collective agreement is approved, it applies to all firms and employees of the sector/region affected, regardless of whether they belong to the social partners signing the agreement;
- *ultra-actividad* (continuance in force, application after the expiry date) of collective agreements, by which the clauses of a collective agreement stay in force, even after its termination, until a new agreement is reached;
- the majority of employees, 92% in 2015, are covered by collective agreements at higher than firm level (sectoral, provincial, regional, or national), with only a minority of employees affected by firm-level collective agreements;

<sup>1</sup> According to the estimates of Uxó *et al.* (2015), between 2007 and 2014, 69% of the jobs lost were directly or indirectly related to construction (82% between 2007 and 2009).

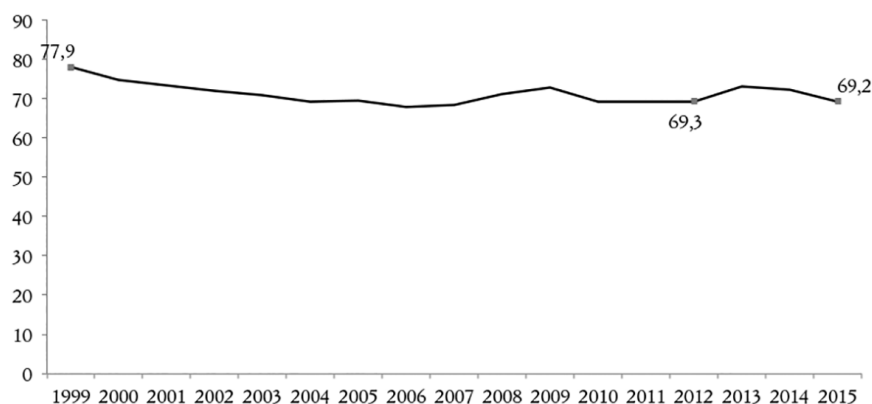
<sup>2</sup> Royal Decree Law 10/2010 of 16 June 2010, containing urgent measures for the reform of the labour market, Royal Decree Law 7/2011 of 10 June 2011, containing urgent measures for the reform of collective bargaining, and Royal Decree Law 3/2012 of 10 February 2012, containing urgent measures for the reform of the labour market.

<sup>3</sup> Royal Decree Law 3/2012 of 10 February 2012, containing urgent measures for the reform of the labour market.

– low, but stable, trade union affiliation rate (around 16%), but high level of participation in trade union elections (67% in 2013 elections), with two trade unions: CCOO and UGT, receiving around near three quarters of votes (Alós *et al.*, 2015).

The automatic extension of collective agreements and the application of the principle of continuance in force guaranteed a high level of coverage of collective agreements (Figure 1): around 70% of all employees are covered by collective agreements<sup>4</sup>.

Figure 1. Non-adjusted collective agreements coverage rate, Spain, 1999-2015 (percentage of total employees)



Source: authors' analysis from the Labour Force Survey (*Encuesta de Población Activa*, EPA) and the Statistics on Collective Bargaining Agreements (*Estadística de Convenios Colectivos de Trabajo*), various years.

Regarding the demography of trade union affiliation, as expected, employees with open-ended contracts have higher affiliation rates, 20.4%, compared with 13% among temporary employees (average rate, 16.4%). A sizeable difference, although probably not so high as to justify considering trade unions as representatives only of 'permanent' employees, as sometimes the caricatural models of insider-outsider tend to argue. Affiliation rates are also higher among men (17.8%) compared to women (14.8%) and in activities dominated by the public sector such as public administration and social security (33%), education (25%), or health and social services (22%). Lastly, affiliation rates are also much higher in large firms (250 employees or more), at 29%, compared to SMEs: 6% in firms with fewer than 10 employees, 12% in firms staffed with between 10 and 49 employees<sup>5</sup>.

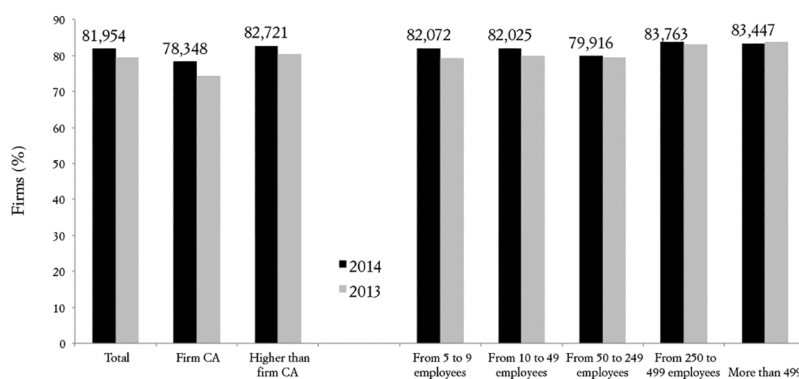
Before proceeding to review the measures taken in reforms, and their impact on the collective agreements system and the agreements themselves, it is important to know to what extent the actors of collective bargaining, and specifically firms, were dissatisfied with

<sup>4</sup> This index is lower than the coverage rate normally used in the literature as the ratio is calculated in relation to all subordinate employment, and not only to those employees with a legal right to collective bargaining. According to the estimates of Visser (2015), the adjusted coverage rate for 2013 for Spain was 78%.

<sup>5</sup> Survey on Quality of Life at Work (*Encuesta de Calidad de Vida en el Trabajo*) 2010. For more details, see Muñoz de Bustillo and Pinto (2017) and Alós *et al.* (2015).

the state of affairs. Figure 2 reproduces the results of the *Encuesta Anual Laboral*, an annual labour survey run by the Ministry of Employment and Social Security in 2013 and 2014 on a sample of firms (with five or more employees) regarding, among other things, the level of satisfaction of firms with the collective agreements in force. As we can see, a large majority of firms, across all sizes, declared they are quite or very satisfied with their collective agreement<sup>6</sup>. Moreover, when asked why they did not have an enterprise agreement, most firms – 77% – answered that it was because the existing sectoral agreement suits their needs.

Figure 2. Firms quite satisfied or very satisfied with their collective agreements, Spain\*



\* Only firms with five or more employees.

Source: authors' analysis from *Encuesta Anual Laboral*, Ministry of Employment and Social Security.

### 3. THE SPANISH REFORMS OF 2010-2012 OF THE COLLECTIVE AGREEMENTS SYSTEM IN A NUTSHELL

The three consecutive labour reforms implemented during the crisis<sup>7</sup> affected the regulation of collective agreements with regard to the following items:

– firms are given the option of halting the implementation of the collective agreement in force in areas such as wages, working conditions, and so on. Although the non-implementation of specific aspects of the collective agreement has to be justified and negotiated with

<sup>6</sup> Although the data correspond to the years after the reforms were enacted (2010-2012), as most collective agreements are multi-annual, in the majority of cases the answers refer to agreements that were already in force before the reform.

<sup>7</sup> For the purpose of this paper, we will review the three major steps taken in the process of reform of collective agreements in a single block. The first step was Royal Decree Law 10/2010 of 16 June 2010, containing urgent measures for the reform of the labour market. The second step was Royal Decree Law 7/2011 of 10 June 2011 containing urgent measures for the reform of collective bargaining. The last was Law 3/2012 of 6 July 2012, containing urgent measures for the reform of the labour market. The first two pieces of legislation were promoted by the Spanish Social Democratic Party (PSOE) and the last one by the Spanish Conservative Party (PP).

employees, in case of lack of agreement the decision is taken by an Arbitration and Mediation Committee in which trade unions are in the minority<sup>8</sup>. So far, firms do not seem to be making much use of this possibility. According to the Survey on Wage Formation (*Encuesta de Formación de Salarios*) (Izquierdo and Jimeno, 2015), in 2014 only 3.7% of those firms with sectoral collective agreements made use of it (1.9% of those with a firm-level collective agreement). For 2015, the administrative data of the Ministry of Employment (Statistics on Collective Bargaining Agreement) record 1,437 cases of non-implementation, in 1,254 firms, affecting 43,173 employees. In most cases, such a process was agreed (91%);

- although not directly related to collective agreements, the first of the labour reforms eased the terms on which firms can modify working conditions (Article 41 of the Labour Code). In the opinion of the trade unions, this option, on which no data are available, is being widely used by firms to change working conditions, as it is less costly and regulated than derogation from collective agreements. Often both measures are taken simultaneously, the former addressed to those elements of working conditions set above the collective agreement, and the latter addressed to those laid down in it (Peñas and Aguilera, 2016);
- pre-eminence is given to firm-level collective agreements. Since the reform, working conditions set in collective agreements at firm level have priority over those laid down at higher levels. The pre-eminence of firm-level collective agreements includes most major labour issues dealt with in agreements: (i) basic salary and extra allowances; (ii) allowances related to firm performance; (iii) overtime and shift allowances; (iv) working time and working time distribution; (v) professional classification; (vi) contract policy; and (vii) work-life balance;
- when a collective agreement expires, its conditions will only be applicable for one year. If another collective agreement is not signed during the following year, the working conditions of the firms in the sector will follow whatever other higher-level agreement is in force (or the Labour Code, if there is none). Before the reform, the principle of continuance in force ensured the automatic time extension of the conditions set in the expired collective agreement until a new one was signed. Faced with the risk that in July 2013, after the end of the transitory period included in the reform, many sectors and workers could lose the protection of their already expired collective agreements, the social partners signed an agreement in order to allow, by mutual accord, the extension of the period<sup>9</sup>. This agreement is indicative of the will of the social partners to continue negotiating even when the new regulation allowed firms to benefit from the phasing-out of existing collective agreements. In any case, the end of the continuance in force had a profound impact on the power leverage of employers vis-à-vis employees. As argued by a representative of Confemetal, the employers' confederation of the metal industry: 'Nobody is interested in the decline of the agreement. Another issue is that, from a business point of view, the disappearance of the continuance in force is being used to obtain other benefits; it is used as a bargaining strategy' (Fernández *et al.*, 2016, p. 32). Since the enactment of the 2012 law limiting the continuance in force, a major judgment by the Supreme Court in 2014<sup>10</sup> considering that

<sup>8</sup> Such as the National Advisory Commission of Collective Agreements (*Comisión Consultiva Nacional de Convenios Colectivos*) or equivalent commissions at regional level. These are tripartite organisations with representation of firms, trade unions, and the government.

<sup>9</sup> Agreement of the Follow-up Commission of the II AENC on the Continuance in Force of Collective Agreements (*Acuerdo de la Comisión de Seguimiento del II AENC sobre Ultra-actividad de Convenios Colectivos*) dated 23 May 2013.

<sup>10</sup> STS 5504/2014 – ECLI: ES: TS: 2014: 5504.

working conditions of the expired collective agreements become part of the work contract, and as such have to be respected for all workers employed while the collective agreement was in force, limited the impact of the elimination of the continuance in force.

But as important as these changes is the fact that, for the first time, the reform of collective agreements was decided without effective consultation and agreement with the social partners. In fact, the reform of 2012 was passed just 10 days after the publication of the Second Agreement on Employment and Collective Bargaining, signed by major trade unions and employers' organisations, and setting the guidelines for collective bargaining for 2012-2014.

These changes in the regulation of collective agreements were accompanied by a reduction of subsidies to trade unions and employers' organisations (around a 60% reduction according to CCOO, 2016a) and a withdrawal from trade union agreements with the public administration at different levels, allowing free working time for union delegates (above the legal requirements) to reinforce trade union structures<sup>11</sup>. In a completely different sphere, but also affecting trade union action, there has been a hardening of the position of the Public Prosecutor's Office regarding the role of trade unionists in strikes and the limits on picketing, leading to an unprecedented rise in the number of trade unionists taken to court. According to Morillo (2015), in 2015, 260 people faced prison sentences for a total of 120 strike-related actions; in 2016, 300 trade unionists were on trial for participating in picketing.

Overall, although it is certainly too soon to present an evaluation of the reforms, we can say that so far there has not been a major change in the structure of collective agreements. The level of coverage, as far as we know with the limited data available (until 2015), has not been much affected although a decrease from 73 to 69 can be observed in the last two years (see Figure 1). The structure still favours collective agreements at higher than firm level (although firm-level agreements are on the rise), social actors, as in the past, have maintained their collaboration in terms of approving a general framework for collective bargaining, and withdrawal from collective agreements has been kept at a low level, partly due to the limits set by the judiciary. But that does not mean that things are 'business as usual', as the main impact of the reform has been on the content of collective agreements. The elimination of many of the existing checks and balances has led to the emptying of collective agreements (Cruces *et al.*, 2016), especially regarding wages, and to a position of defensive bargaining by trade unions, aimed at maintaining the collective agreements in existence. According to a trade union representative, the reforms have changed the attitude of firms at the bargaining table from trying to give as little as possible to trying to obtain as much as possible (Cruces *et al.*, 2016). One example of such change, among many, is the reduction in the number of workers benefitting from collective agreements with compensation clauses for higher-than-expected inflation, the so-called 'wage guarantee' (*garantía salarial*)<sup>12</sup>. In 2008, 67% of employees covered by collective agreements enjoyed such a clause; in 2015, the percentage was down to only 12.5%. In any case, it has to be acknowledged that this trend predates the labour reforms of 2010 and 2012.

<sup>11</sup> Although, according to the trade unions (CCOO, 2016a), public subsidies are a minor part of their overall budget (around 15%), the coincidence of such reductions with the drop in affiliation due to rising unemployment has strained the capacity of the organisation to face the growing challenges of the crisis, as well as the labour market reforms.

<sup>12</sup> The 'wage guarantee clause' is activated when the Consumer Price Index (CPI) is higher than the forecasted CPI taken into consideration when negotiating the wage increase. In that case, employees are compensated for the unexpected increase in prices.



#### 4. AN APPROXIMATION TO THE IMPACT OF FIRM-LEVEL COLLECTIVE AGREEMENTS ON WAGE INEQUALITY AND TEMPORALITY RATE

As we have seen in the previous section, one of the aims of the reform was to increase the role of firm-level collective agreements in the Spanish industrial relations system, giving them priority over collective agreements at a higher level. In this section, we will explore the potential effect of this measure by looking at the impact that having a firm-level collective agreement has on wage inequality and temporality rates at the level of the firm.

To our knowledge, there is some literature on the first issue – type of collective agreements and wage inequality – but not on the second. The available international literature on the former issue suggests that firm-level collective bargaining, compared to higher levels of bargaining centralisation, has implications in terms of wages and wage inequality: lower wage increases, higher wage dispersion, and higher gender pay gaps<sup>13</sup>. As mentioned elsewhere (Muñoz de Bustillo and Antón, 2015), the empirical literature for the Spanish economy, which could guide our insights on the likely effects of the reforms favouring firm-level collective bargaining, is inconclusive and problematic. As we have seen, collective bargaining at firm level was not the default option until the changes implemented in 2012. As a result, Spanish workers under firm-level collective agreements were often those belonging to large firms, where frequently trade unions had strong bargaining power, which made it advantageous to sign firm agreement with more favourable conditions than those agreed at higher bargaining levels. In this context, the causal effect of the level of bargaining centralisation is difficult to exploit, because one has to disentangle the relevant selection bias. In general, available studies tend to confirm the higher level of overall wage dispersion associated with firm-level collective agreements (Abellán *et al.*, 1997; Izquierdo *et al.*, 2003; Canal and Rodríguez, 2016), as well as a higher gender wage gap (Amuedo-Dorantes and De la Rica, 2003; De la Rica and González, 2007; Card and De la Rica, 2004)<sup>14</sup>.

In order to test the role played by the type of collective agreement in force in a given firm on intra-firm wage inequality, we resorted to the recently available wage data of the Spanish SES 2014<sup>15</sup>. After calculating different indices of wage inequality of the firms in the sample, we estimated the determinants of intra-firm wage inequality, as measured by the Gini index. The variables considered in the analysis are: demographic (gender and age composition of the firm), educational composition and seniority of the labour force, type of contract (open-ended versus temporary contract, full time versus part time), size and type (public versus private) of firm, activity, geographic location, type of demand (local, national, European, or rest of the world), and type of collective agreement regulating working conditions at the firm. The survey identifies five types of collective agreement: (i) sectoral at national level; (ii) sectoral at lower level: regional, provincial, or local; (iii) firm level; (iv) establishment level; and (v) other. We are interested in testing if, after controlling for the abovementioned variables related to the characteristics of employees and firms, the

<sup>13</sup> See, for example, Rowthorn (1992), OECD (1997 and 2004), Blau and Kahn (1999 and 2003), Elvira and Saporta (2001), and Aidt and Tzannatos (2002).

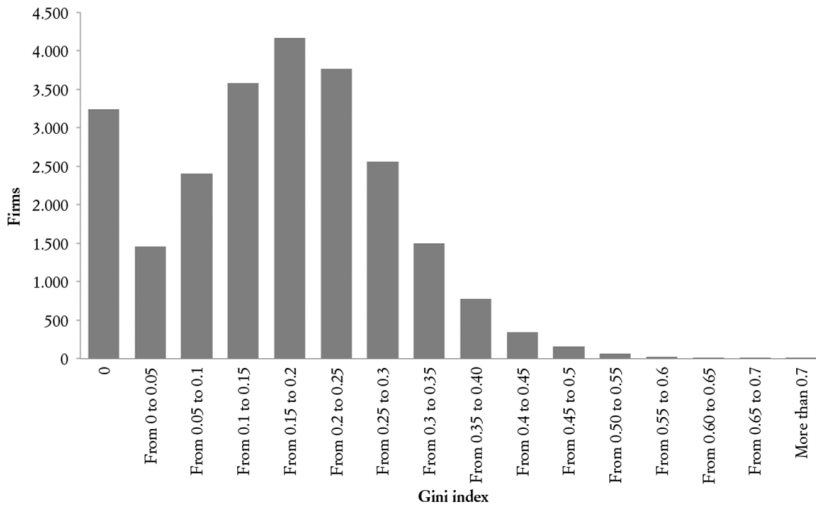
<sup>14</sup> Felgueroso *et al.* (2008) find a different effect depending on the place occupied by women in the wage distribution, with women at the bottom of the wage distribution being subject to narrower wage gaps when covered by collective agreements at higher than firm level, while the opposite occurs for those in the upper part of the wage distribution.

<sup>15</sup> SES 2014 is an employee-employer survey with a sample size of 27,339 firm units and 227,830 employees, covering all activities except agriculture, public administration (partially), and domestic service.

type of collective agreement has any effect on wage inequality at firm level, as well as its size and direction.

Before presenting the results of our exercise, it is worth mentioning the relatively high dispersion of wage inequality – as measured by the Gini index – of Spanish firms, with values going from 0 (e.g. firms with one employee) up to 0.713 (Figure 3).

Figure 3. Distribution of wage inequality at firm level, Spain, 2014



Source: authors' analysis from SES 2014 microdata.

Table 1 presents the results of the regression using the Gini index of wages of the firm as a dependent variable, and the abovementioned items as independent variables. The same analysis was performed using alternative indices of inequality (P90/P10, P90/P50, P50/P10, etc.), obtaining similar results. Focusing on the question posed above, after controlling for the characteristics of firms and employees, compared with firms with collective agreements at regional or provincial level, those firms with a collective agreement at firm level have higher wage inequality (at 90% confidence level). In contrast, having a collective agreement at national level has an even higher compressing impact on wage inequality, although the relationship is not statistically significant. One possible reason behind such result, as argued by Dahl *et al.* (2013) for Denmark, could be that the individual specific characteristics of workers (and firms) are more likely to enter in the process of wage setting in the context of firm-level collective bargaining, generating higher returns to skills (especially in the upper part of the distribution) and leading to higher intra-firm wage inequality.

Regarding the effect of the control variables on intra-firm wage inequality, we find few surprises: firms with more women not only have lower wages, but higher wage inequality; the same applies in firms with temporary employees and part-time jobs. In contrast, having more foreign employees on the payroll does not seem to have an impact on wage inequality. Firms with higher temporality rates also have higher wage inequality. In relation to age,



firms with a higher percentage of young employees (under 30 years old) feature more wage inequality. The size of the firm also matters in terms of inequality, as small firms (1-49 employees) have lower inequality compared with large firms (over 200). Education also contributes to wage inequality as firms with a more educated workforce have a higher wage Gini index (compared with the category used as reference, lower secondary). Finally, public-sector firms have lower wage inequality. Before concluding, it is important to highlight that, as we cannot assume that having a firm-level collective agreement is a matter of chance (only a minority of firms, 12% of the sample, usually large firms, have firm-level collective agreements), the abovementioned results have to be interpreted cautiously, and in terms of correlations and not causation.

Summing up, the Spanish collective agreements system, based on higher-than-firm-level bargaining, so far has had a compressing effect on wage dispersion, contributing to lower levels of wage inequality at firm level. In this respect, the lower presence of this type of collective agreement in the Spanish labour landscape may also have contributed to lower levels of wage inequality<sup>16</sup>. This result is consistent with the lesser role played by market inequality in overall disposable income inequality in Spain in relation to other EU countries (Muñoz de Bustillo, 2016). In this regard, the move towards increasing the role of collective agreements at firm level of the 2012 labour reform, if successful, could contribute in the future to growing levels of wage inequality.

A second important element to be discussed in this section is the relationship between collective agreements and job security. Regarding this topic, the Spanish record can hardly be more dismal. Spain was, back in 1984, a pioneer in the liberalisation of the use of temporary contracts and after that became the leader among the member countries of the Organisation for Economic Co-operation and Development (OECD) in terms of temporary employment rate, to the extent that, before the crisis, one third of employees were hired on a temporary basis. Only with the crisis and the concentration of employment destruction in this segment of the labour market has Spain handed over this position to Poland. Whatever merits collective agreements may have in Spain, it is clear that a high level of workforce stability is not among their achievements. This development is important for two reasons. In the first place, because its mere existence exemplifies the failure of the collective agreements system to address a major concern of Spanish workers. In the second place, because trade unions and the collective agreements system itself have often been blamed for the existence of such a large share of precarious employment.

As we can see in Table 2, although provisions regarding the use of temporary employment by firms are not absent from collective agreements, their presence can be considered, at most, modest<sup>17</sup>. Of those collective agreements with qualitative information about their content, only around 13 %, affecting roughly one fifth of employees, include provisions on the conversion of fixed-term contracts into open-ended contracts, while fewer than 5% of collective agreements establish limits on the ratio between the number of temporary employees and the overall labour force<sup>18</sup>.

<sup>16</sup> In 2008, according to data from the Statistics on Income and Living Conditions (EU-SILC), the Spanish level of wage inequality as measured by the Gini index was 0.277. The same year Denmark, the country with the lowest wage inequality among the 24 EU countries analysed, had an index of 0.216, while the highest index, that of Portugal, was 0.366. The average of countries' Gini indices was 0.296 (Fernández-Macías and Vacas, 2015, p. 35).

<sup>17</sup> For a detailed analysis of this issue, see Rocha *et al.* (2006).

<sup>18</sup> For example, the 2011 provincial collective agreement of offices of Salamanca sets a minimum limit of 60% of employees with open-ended contracts. A similar minimum percentage (65%) is considered in the national collective agreement of security firms of 2015.

Table 1. Variables affecting wage inequality (Gini index) of Spanish firms (2014): estimation results

	Coefficient	Significance	Robust standard errors		Coefficient	Significance	Robust standard errors
% women in the company	0.007	**	(0.003)	Public sector	-0.012	***	(0.003)
% temporary jobs	0.047	***	(0.003)	Extractive industries	0.011		(0.008)
% part-time jobs	0.030	***	(0.003)	Textiles and food industry	0.009	**	(0.004)
% foreign workers	0.000		(0.005)	Wood and paper industry	0.004		(0.006)
% under-19-year-olds	0.155	**	(0.063)	Graphic arts	0.014	**	(0.007)
% 20-29 year-olds	0.024	***	(0.005)	Chemical and petroleum derivatives industry	0.008	*	(0.005)
% 40-49 year-olds	-0.003		(0.004)	Mineral and non-metal products industry	0.004		(0.006)
% 50-59 year-olds	0.002		(0.004)	Metal industry	-0.001		(0.005)
% above-59-year-olds	0.030	***	(0.008)	Industrial computing	0.004		(0.005)
% short-tenure workers	0.005	*	(0.003)	Other manufacturing industries	0.003		(0.005)
% firm size (1-49 workers)	-0.058	***	(0.002)	Energy sector	-0.021	***	(0.008)
% firm size (49-200 workers)	0.001		(0.002)	Water purification recycling and waste treatment sector	0.021	***	(0.005)
% less than primary education	-0.017	**	(0.007)	Construction and building engineering	-0.002		(0.004)
% primary education	0.002		(0.003)	Wholesale vehicles sector	0.009	*	(0.005)
% upper secondary education	0.008	***	(0.003)	Retail vehicles sector	0.020	***	(0.005)
% vocational training education	0.009	**	(0.004)	Transport services sector	0.003		(0.006)

% higher education (bachelor)	0.030	***	(0.005)	Postal services and storage services	0.012	**	(0.006)
% masters/doctoral	0.039	***	(0.004)	Ho.Re.Ca.	0.035	***	(0.006)
North-west	-0.016	***	(0.002)	Information, cinematographically and TV services	0.007		(0.004)
North-east	-0.007	***	(0.002)	Real estate activities	-0.037	***	(0.009)
Madrid	0.006	**	(0.002)	Firm advising and consulting services	0.004		(0.004)
Centre	-0.023	***	(0.002)	Renting services	0.020	***	(0.004)
South	-0.017	***	(0.002)	Public administration, social security, and defence	0.006		(0.006)
Canary Islands	0.000		(0.004)	Education services	0.038	***	(0.006)
National level	-0.001		(0.002)	Healthcare services	0.037	***	(0.005)
Firm level	0.004	*	(0.002)	Artistic activities	0.045	***	(0.006)
Establishment level	-0.006		(0.004)	Other services	-0.006		(0.005)
Other type	-0.004		(0.003)	Constant	0.176	***	(0.005)
Local and regional market	-0.022	***	(0.002)	Observations			<b>24,062</b>
EU market	0.001		(0.003)	R-squared			<b>0.160</b>
World market	0.003		(0.002)	F(58, 23,989)			<b>80,95</b>

Note: reference categories: age = % 30-39 year-olds; firm size = over 200 employees; education = lower-secondary education; region = east; collective agreement = regional; market = national; sector = finance and so on.  
 Weighted data: \*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1.  
 Source: authors; analysis from SES 2014 microdata.

The percentage of collective agreements providing some kind of control of chain temporary hiring (to prevent the hiring of a given worker over time using consecutive temporary contracts) is also very low, at around 6%. All in all, looking at the information provided by Table 2, we can say that, at least in terms of results, trade unions have not managed to use collective agreements as a tool for labour force stabilisation. Having said that, it has to be acknowledged that the presence of these types of provisions in collective agreements at firm level is even lower. For example, in 2015 only 7.4% of employees with firm-level collective agreements benefitted from limits on the maximum number of bouts of temporary employment (compared with 21% of those covered by collective agreements).

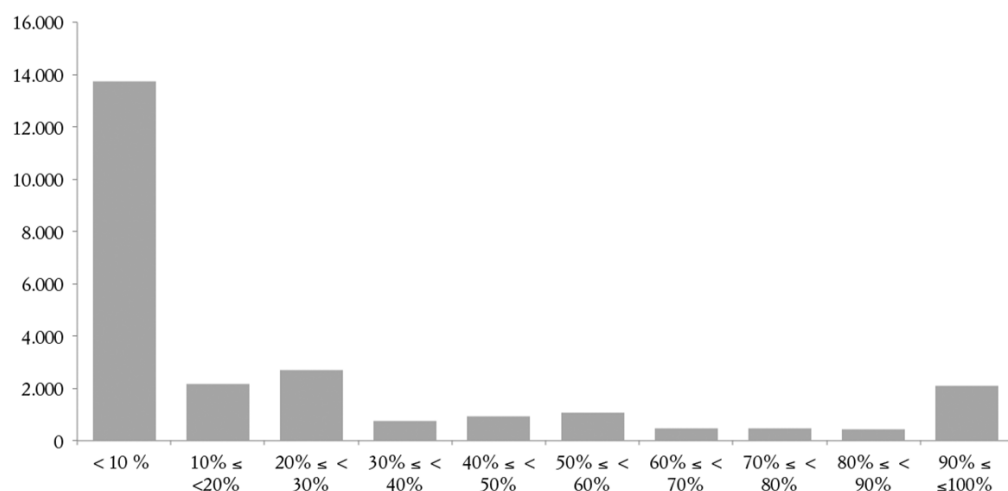
Table 2. Clauses related to temporary employment included in collective agreements, Spain, 2012 and 2015

	2012		2015	
	Collective agreement	Workers	Collective agreement	Workers
	%	%	%	%
Transformation of temporary contracts into open-ended contracts	12.8	28.7	12.9	21.6
Maximum number of temporary contracts	8.0	30.8	8.8	21.4
Control of chain temporary hiring	6.1	19.5	6.3	30.7
Use of temporary agency work	9.4	15.2	8.8	25.3
Outsourcing of specific activities	3.0	11.2	3.5	17.8
Type of jobs that can be performed by temporary employees	9.4	25.2	10.5	28.8
Limits to temporary employees/total employees	3.4	16.5	3.5	6.8
Clauses related to part-time employment	10.8	26.2	11.5	33.3
Increase in the number of complementary hours for part-timers	2.8	1.6	4.9	15.1

*Source:* authors' analysis from the Statistics on Collective Bargaining Agreements, various years.

To conclude this section, we will explore now, using the same source as before, SES (2014), the existing relation, if any, between the type of collective agreement in force (whether signed at firm level or at higher than firm level), and the temporality rate in Spanish firms. Before doing so, Figure 4 reproduces the distribution of temporality rates among Spanish firms. The figure shows how for slightly more than half of the firms of the sample, the temporality rate is relatively low, below 10%, but also that, on the other extreme, in 10% of the Spanish firms a large majority of employees are hired on a temporary basis (80% or more).

Figure 4. Distribution of temporality rates at firm level, Spain, 2014



Source: authors' analysis from SES 2014 microdata.

Table 3 reproduces the results of the econometric exercise carried out to explore whether there is a systematic relation between the use of temporary employment by Spanish firms and the type of collective agreement in force, controlling for a set of variables related to the characteristics of the firm. Like in the previous regression, this time we control for variables related to the characteristics of the workforce (sex, age, tenure, and educational level), geographical location, type of market (local, regional, national, European, or global), nature of the firm (private/public), and sector of activity. Starting with our main concern (the relation between type of collective agreement and temporality rates at firm level), the result points to the existence of a positive (and statistically significant) relation between having a firm-level collective agreement and having higher temporality rates. Compared with collective agreements at regional level, national-level collective agreements are related with lower temporality rates, although the relation is not statistically significant. Regarding the other variables included in the regression, the share of women in the firm has a negative impact on temporality rates while the share of part-time jobs has the opposite effect. As expected, those firms with more workers of a younger age, until 30 years old, feature a higher temporality rate. Education, not surprising, has a negative effect on temporality. Regarding the firm side, small and medium firms have lower temporality rates compared to large firms (over 200 employees). The type of demand faced by the firm seems also to have an impact on its hiring policy, as firms selling to foreign markets (either European or global) feature lower recourse to temporary employment. Last, it is interesting to note that public-sector firms show higher tendency to use temporary contracts. Altogether, the variables considered explain a significant part of the differences in temporality rates among Spanish firms,  $R^2$  of 0.327.

Table 3. Variables affecting the temporality rate of Spanish firms (2014): estimation results

	Coefficient	Significance	Robust standard errors		Coefficient	Significance	Robust standard errors
% women in the company	-0.039	***	(0.000)	Extractive industries	0.081	***	(0.000)
% part-time jobs	0.077	***	(0.000)	Textiles and food industry	0.032	***	(0.000)
% foreign workers	-0.017		(0.207)	Wood and paper industry	0.057	***	(0.000)
% under-19-year-olds	0.314	***	(0.000)	Graphic arts	0.009	**	(0.472)
% 20-29 year-olds	0.047	***	(0.000)	Chemical and petroleum derivatives industry	0.034	***	(0.000)
% 40-49 year-olds	-0.026	***	(0.000)	Mineral and non-metal products industry	0.063	***	(0.000)
% 50-59 year-olds	-0.058	***	(0.004)	Metal industry	0.069	***	(0.000)
% above-59-year-olds	-0.031	**	(0.045)	Industrial computing	0.059	***	(0.000)
% short-tenure workers	0.377	***	(0.000)	Other manufacturing industries	0.062	***	(0.000)
% firm size (1-49 workers)	-0.046	**	(0.014)	Energy sector	0.027	*	(0.068)
% firm size (50-200 workers)	-0.055	***	(0.000)	Water purification recycling and waste treatment sector	0.061	***	(0.000)
% less than primary education	0.041	**	(0.043)	Construction and building engineering	0.196	***	(0.000)
% primary education	0.012	*	(0.082)	Wholesale vehicles sector	0.002		(0.801)
% upper-secondary education	-0.041	***	(0.000)	Retail vehicles sector	-0.015		(0.133)
% vocational training education	-0.049	***	(0.000)	Transport services sector	0.041	***	(0.001)
% higher education (bachelor)	-0.080	***	(0.000)	Postal services and storage services	-0.005		(0.687)



% masters/doctoral	-0.080	***	(0.000)	Ho.Re.Ca.	0.017	(0.145)
North-west	0.054	***	(0.000)	Information, cinematographically and TV services	0.048	*** (0.000)
North-east	0.034	***	(0.000)	Real estate activities	0.015	(0.361)
Madrid	-0.012	**	(0.023)	Firm advising and consulting services	0.052	*** (0.000)
Centre	0.056	***	(0.000)	Renting services	0.135	*** (0.000)
South	0.059	***	(0.000)	Public administration, social security, and defence	0.042	*** (0.008)
Canary Islands	0.031	***	(0.000)	Education services	0.171	*** (0.000)
Collective agreements at national level	-0.002		(0.683)	Healthcare services	0.126	*** (0.000)
Collective agreements at firm level	0.017	***	(0.001)	Artistic activities	0.071	*** (0.000)
Collective agreements at establishment level	-0.007		(0.459)	Other services	0.066	*** (0.000)
Other type	0.030	***	(0.030)	Constant	0.026	** (0.023)
Local and regional market	-0.010	**	(0.013)			
EU market	-0.031	***	(0.000)	Observations		<b>24,801</b>
World market	-0.024	***	(0.000)	R-squared		<b>0.327</b>
Public-sector firm	-0.151	***	(0.000)	F(57, 24,743)		<b>163.51</b>

Note: reference categories: age = % 30-39 year-olds; firm size = over 200 employees; education = lower-secondary education; region = east; market = national; sector = finance and so on. Weighted data. \*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.1.  
Source: authors; analysis from SES 2014 microdata.

## 5. CONCLUSIONS

The reform of the collective agreements system was part and parcel of the so-called ‘structural reforms’ developed during the crisis by successive Spanish governments, under close scrutiny of the European Commission and the European Central Bank (ECB). The reforms facilitated the decentralisation, favouring firm-level bargaining, and the flexibilisation of collective agreements, promoting, through different mechanisms, the alteration – by the employer – of working conditions agreed in collective agreements. So far, in practice, it does not seem that these reforms have translated into a radical change of the collective agreements system. The coverage rate is still high, although slowly decreasing, a majority of collective agreements are still bargained at higher than firm level, and derogations and opting-out of collective agreements have been kept at low numbers. But that doesn’t mean that the reform has had no impact on industrial relations. According to the actors of collective bargaining, the impact has been subtler, as it has translated into an important change in the balance of power between firms and employees in favour of the former. This has resulted in the ‘emptying’ of collective agreements, as trade unions are on the defensive, trying to keep the collective agreements system itself alive, without much power to improve its contents. An example of this is the current stalemate (fall 2017) in the process of setting the general guidelines for collective bargaining. In a context of high GDP and employment growth, and after a significant reduction of real wages with the crisis, trade unions are calling for wage increases between 1.8% and 3%, while business organisations offer increases between 1% and 2%.

Regarding bargaining at firm level, as mentioned above, although there has not been a major change in the share of workers covered by firm-level collective agreements, there is a noticeable increase in the number of such type of collective agreements. According to our analysis of wage inequality and temporality rate at firm level, in both cases having a firm-level analysis correlates positively with higher wage inequality and higher temporality rate. Thus, if the intended implications of the reform (to favour firm-level collective agreements), materialise, one of the consequences could be the growth in wage inequality and in employment instability.

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