“Collective Bargaining and Internal Flexibility in the EU during the Great Recession”

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### Legislative changes in collective bargaining, 2010-2013

<table>
<thead>
<tr>
<th></th>
<th>Germany</th>
<th>Austria</th>
<th>Belgium</th>
<th>Denmark</th>
<th>Spain</th>
<th>Finland</th>
<th>France</th>
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<td>X</td>
<td>X</td>
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<tr>
<td>Worker representativity</td>
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<td>X</td>
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</tbody>
</table>

Source: Prepared by the authors based on Clauwaert and Schömann (2012); Eurofound (2014), and European Commission (LABREF).
Introduction and objective

- Objective: to analyze the response of collective bargaining to the GR in terms of internal flexibility during the economic crisis
  - in five EU countries (Spain, Germany, France, Italy, United Kingdom), and
  - three economic sectors (industry, commerce and hospitality, and financial services and real estate).

- We specifically identify the main responses in terms of both
  - existing internal flexibility instruments and
  - the development of new ones through collective bargaining.
- By countries, wage bargaining level and economic situation
Introduction and objective

• These responses can be classified by:
  • sector and country,
  • Highlighting similarities and differences, and
  • testing whether the transformations in internal flexibility were the result of the economic sectors characteristics or of a particular collective bargaining structure.

• The role of other factors:
  • economic situation (employment, production, finances);
  • the collective wage bargaining level in each company;
  • the firm/establishment size;
  • the incorporation of new technologies
Analytical and theoretical framework

• How the collective bargaining has contributed to manage the economic crisis consequences throughout the internal flexibility (IF)?
  • Which are the pattern of incidence and character of crisis-response?
  • Which factors have influenced the pattern of incidence and character of crisis-response?
  • What might be medium-term implications
Analytical and theoretical framework

• Freyssinet and Seifert (2001) and Sisson and Artiles (2000), developed an analytical framework for assessing the ability of collective bargaining to respond to significant changes in economic cycles, the so called “Pact for Employment and Competitiveness” (or PECs).

• Glassner, Keune, and Marginson (2011), and Glassner and Keune (2010), developed an analytical scheme for explaining how collective bargaining responds to economic cycles, accounting for different factors, such as the characteristics of industrial relations, trade union and entrepreneurial strategies, public policies, and national, sectoral, and entrepreneurial economic performance.
Analytical and theoretical framework

*Varieties of Capitalism* (Hall and Soskice, 2002)

According to Frege and Kelly (2004), in the UE exist four *varieties of unionism*:
1. The Nordic countries: social democratic tradition, formed by Sweden and Denmark, with exceptionally high trade union density, coverage rate and coordination level;
2. The central countries: Germany, Austria, Belgium and The Netherlands with institutionalized social partnership and an intermediate level;
3. The south countries, France, Italy, Spain and Greece, with a weakly institutionalized industrial relationship; with low union density, however high coverage rate and intermediate coordination level; and
4. LMI of Britain and Ireland; collective bargaining at firm level, low coordination and intermediate level of union density.
Analytical and theoretical framework

Evidences:
The collective bargaining structure has a long-term trend of reducing the union bargaining power. Particularly since the 1980s, almost European countries experienced a reducing in the union density rate, in the collective bargaining coverage, and in the centralization level and wage bargaining coordination (Lenhdorf et al, 2017; Gumbrell-McCormick and Hyman, 2013).

During the Great Recession (GR) this trend has been accelerated, with the proliferation of opening clauses in multi-employer or multi-sectoral wage bargaining (the case of German Hartz Reform, the Italian reform and the rupture that marked the Pomigliano Agreement ), and the labour reforms that favoured company-level collective bargaining (Spain, Portugal, Greece, Ireland). Visser (2016a).
Database and Methodology

   a. This survey involved a questionnaire that sought information about the different ways work is organized in all EU countries and how these different ways are managed and bargaining at the company/establishment level.

b. This database allows us to obtain information about the changes made, since 2010, in
   a. Internal flexibility,
   b. Production,
   c. Employment,
   d. Adoption of new methods of organizing production and technologies,
   e. Sector and size of the establishment, and
   f. 28 EU countries
Database and Methodology

a. The database of the *European Company Survey 2013* (ECS2013) sample

<table>
<thead>
<tr>
<th>Country</th>
<th>Sample</th>
<th>Industry</th>
<th>Construction</th>
<th>Commerce and hospitality</th>
<th>Transport and communication</th>
<th>Financial services and real estate</th>
<th>Other services</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>Sample</td>
<td>623</td>
<td>128</td>
<td>286</td>
<td>96</td>
<td>39</td>
<td>286</td>
<td>1458</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>42,7%</td>
<td>8,8%</td>
<td>19,6%</td>
<td>6,6%</td>
<td>2,7%</td>
<td>19,6%</td>
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</tr>
<tr>
<td>Spain</td>
<td>Sample</td>
<td>432</td>
<td>111</td>
<td>300</td>
<td>101</td>
<td>49</td>
<td>435</td>
<td>1428</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>30,3%</td>
<td>7,8%</td>
<td>21,0%</td>
<td>7,1%</td>
<td>3,4%</td>
<td>30,5%</td>
<td>100,0%</td>
</tr>
<tr>
<td>France</td>
<td>Sample</td>
<td>379</td>
<td>147</td>
<td>399</td>
<td>113</td>
<td>80</td>
<td>320</td>
<td>1438</td>
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<tr>
<td></td>
<td>%</td>
<td>26,4%</td>
<td>10,2%</td>
<td>27,7%</td>
<td>7,9%</td>
<td>5,6%</td>
<td>22,3%</td>
<td>100,0%</td>
</tr>
<tr>
<td>Italy</td>
<td>Sample</td>
<td>659</td>
<td>129</td>
<td>288</td>
<td>111</td>
<td>42</td>
<td>285</td>
<td>1514</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>43,5%</td>
<td>8,5%</td>
<td>19,0%</td>
<td>7,3%</td>
<td>2,8%</td>
<td>18,8%</td>
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</tr>
<tr>
<td>United</td>
<td>Sample</td>
<td>300</td>
<td>84</td>
<td>495</td>
<td>120</td>
<td>75</td>
<td>405</td>
<td>1479</td>
</tr>
<tr>
<td>Kingdom</td>
<td>%</td>
<td>20,3%</td>
<td>5,7%</td>
<td>33,5%</td>
<td>8,1%</td>
<td>5,1%</td>
<td>27,4%</td>
<td>100,0%</td>
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<tr>
<td>Total</td>
<td>Sample</td>
<td>9150</td>
<td>2325</td>
<td>6441</td>
<td>1880</td>
<td>1162</td>
<td>5812</td>
<td>26770</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>34,2%</td>
<td>8,7%</td>
<td>24,1%</td>
<td>7,0%</td>
<td>4,3%</td>
<td>21,7%</td>
<td>100,0%</td>
</tr>
</tbody>
</table>
Database and Methodology

a. Descriptive statistics and contingency tables are discussed, in order to establish relations among target variables.

b. Econometric analyses (*probit model*) are undertaken, in order to estimate the main factors related to internal flexibility.

c. As a final step to corroborate the quantitative results, semi-structured, qualitative, and in-depth interviews were conducted with the most important unions in the five countries:
   - Spain: UGT and CCOO; Germany: NGG, Verdi and IGMetall; United Kingdom: Unite; Italia: UIL and CGIL; France: CFDT and FO)
Internal Flexibility

- Atkinson (1984) classified three types of internal flexibility:
  - **Internal numerical flexibility**: the company adjusts the quantity of jobs to output demand without reducing the number of workers employed, in essence by modifying the conditions of the working day or distribution, in general, of working time, thus adjusting the number of workers and the effective hours per employee, according to the needs of the output level at any moment.
  - **Functional internal flexibility**: the process by which workers’ skills and abilities are adjusted to the levels needed to carry out company-determined activities at any moment.
  - **Wage and financial flexibility**: the company seeks a more flexible way to adjust labor costs to variation in demand.
Database and Methodology

• **Internal functional flexibility (IFF)**: Three indicators measure the degree of internal functional flexibility in establishments.
  • Existence of work teams with certain functions, although their internal mechanisms are, in general, autonomous.
  • Multi-team: if workers carry out their activities in more than one work team and,
  • Multi-task: if workers can carry out more than one task.

• Changes in internal functional flexibility since 2010.
Database and Methodology

- **Internal numerical flexibility (INF)** refers to the organization of working time within establishments to meet the needs of both employees and employers and is measured in ECS2013 with three indicators:
  - Flexible working hours: the possibility of workers adapting to changes at the start or end of the working day (flextime);
  - Bank hours: the possibility of saving working time and using it later;
  - Part time: the percentage of part-time workers;

- Changes in internal numerical flexibility since 2010.
Database and Methodology

- **Wage or financial flexibility (WF)** refers to the variable part of worker payments, i.e., a supplement to the basic wage that varies both in amount and over time, that is, it is not fixed. This type of variable salary is defined by a series of elements normally associated with the productive and financial performance of the company and its workers. ECS2013 shows five different forms of wage flexibility, three associated with the productive performance of workers and the establishment, and two associated with the financial performance of the establishment or company.
  - Depends on the performance of the establishment
  - Depends on individual performance.
  - Associated with the performance of the work team or department.
  - Depends on the profit-sharing scheme
  - Depends on workers’ participation in the capital of the company (shares)

- Changes in internal numerical flexibility since 2010.
MAIN RESULTS

- General results
- Each type of internal flexibility by:
  - Intensity of use
  - Changes since the beginning of 2010
  - Contingency table analysis
MAIN RESULTS

- General results
Change in Internal Functional Flexibility (IFF), Internal Numerical Flexibility (INF) and Wage Flexibility (WF) since 2010 (%)

<table>
<thead>
<tr>
<th>Country</th>
<th>INF</th>
<th>IFF</th>
<th>WF</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>19.4</td>
<td>26.6</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>22.5</td>
<td>34.8</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>17.1</td>
<td>28.9</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>17.6</td>
<td>31.1</td>
<td>42.0</td>
</tr>
<tr>
<td>Germany</td>
<td>12.6</td>
<td>24.5</td>
<td></td>
</tr>
</tbody>
</table>

Main results
Change in IFF, INF and WF, by sector, since 2010 (%)
Change in IFF, INF and WF, by wage bargaining level, since 2010 (%)
MAIN RESULTS: QUALITATIVE ANALYSIS

- **Functional flexibility by:**
  - Intensity of use
  - Changes since the beginning of 2010
  - Contingency table analysis
IFF intensity by types of functional flexibility/country and change since 2010 (%)
Functional flexibility: main results

Intensity of use:
  i. Types of IFF/countries (% establishment): no common patterns
     • Work team: high level in all countries
     • Multi work team: ESP>ITA>FRA>UK>GBR
     • Multi task: high level in all countries
Functional flexibility: main results

Change since 2010 by:

i. Countries: ESP>ITA>FRA>UK>DEU

ii. Establishment size: medium > large

iii. Sector/country
   • ESP, FRA: Commerce and hospitality
   • ITA, UK: Finance
   • DEU: Industry

iv. Wage bargaining level/countries: no common pattern
   • ESP: high % of change in all wage bargaining level
   • ITA: establishment/company
   • UK: national/cross-sectoral and sectoral/regional
   • FRA: occupation and national/cross-sectoral
   • DEU: occupation
Functional flexibility: main results

• we have observed the most intensive trend is that company is reducing the number of work team by task, which means that increase multi tasks: more task for the same wage
  • Reducing cost: distributive bargaining

• The high level of change IFF in Spain and Italy is a consequence of low level of functional flexible instruments, so they have to developed new ones to adapt to the economic crisis
  • While DEU and UK use existing instruments
  • Medium term consequences: common trend intensifying the use of internal flexibility
Functional flexibility: main results

• Change in IFF and economic cycle relation by countries and sectors
  - For all countries and sectors: the higher the economic crisis the higher the changes in IFF since the beginning of 2010

• Change in IFF and the introduction of new technology
  - Industry: no clear relationship.
    - High level of changes and use of new technology in ESP, ITA y UK
    - Medium level in DEU
    - Low level in FRA
  - Commerce and Hospitality and Finance: positive relationship

- OBS: it not means causality.
Industry: Change in IFF and economic situation change since 2010 relations

% establishments have introduced change in IFF since the beginning 2010

% establishment has reduced employment, production and worsened financial situation since the beginning 2010

% establishments have change use of technology since the beginning 2010
Main results

Commerce and Hospitality: Change in IFF and economic situation change since 2010 relations

- Employment
- Production
- Finance

% establishments has introduced change in IFF since the beginning 2010

% establishment has reduced employment, production and worsened financial situation since the beginning 2010

% establishments has introduced change in IFF since the beginning 2010

Change use of technology

Germany

UK

France

Spain

Italy
Main results

Finance, Change in IFF and economic situation change since 2010 relations

% establishments has introduced change in IFF since the beginning 2010

% establishment has reduced employment, production and worsened financial situation since the beginning 2010

% establishments has introduced change in IFF since the beginning 2010

% establishments has change use of technology since the beginning 2010

Germany

UK

Spain

Italy

France

Employment

Production

Finance

Change use of technology
MAIN RESULTS

- **Numerical internal flexibility by:**
  - Intensity of use
  - Changes since the beginning of 2010
  - Contingency table analysis
INF intensity by types of numerical flexibility/country and change since 2010 (%)
Numerical flexibility: main results

Intensity of use:
  i. Types of INF/countries (% establishment): no common patterns
     • Part Time: DEU and UK
     • Bank hour: GE and FR
     • Working time: high level in all countries

Change since 2010 by:
  i. Countries: ESP>ITA>UK>FRA>DEU (integrative bargaining)
  ii. Establishment size: large
  iii. Sector/country
    • ESP, UK: Finance
    • ITA, FRA: Commerce and hospitality
    • DEU: Industry
Numerical flexibility: main results

Change since 2010 by:
iv. Wage bargaining level/countries: no common pattern
• ESP: sectoral/regional
• ITA: national
• UK: establishment/company
• FRA: establishment/company and national/cross-sectoral
• DEU: sectoral/regional and establishment/company
Numerical flexibility: main results

• Change in INF and economic cycle relation by countries and sectors
  - For all countries and sectors: the higher the economic crisis the higher the changes in INF since the beginning of 2010

• Change in IFF and the introduction of new technology
  - High level of positive relationship in all sector, although with a certain heterogeneity between countries and sectors
    - Commerce and hospitality and finance > industry
    - Commerce and hospitality: ESP and ITA
    - Finance: UK
  - OBS: it not means causality.

• Change in IFF and Wage Bargaining Level: no clear relation
MAIN RESULTS

- Wage flexibility by:
  - Intensity of use
  - Changes since the beginning of 2010
  - Contingency table analysis
WF by types of wage flexibility/country and change since 2010 (%)

- Change WF
- Share ownership
- Profit share scheme
- Performance of the team
- Individual performance
- Results

<table>
<thead>
<tr>
<th>Country</th>
<th>UK</th>
<th>Italy</th>
<th>France</th>
<th>Spain</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change WF</td>
<td>22.5</td>
<td>24.5</td>
<td>31.1</td>
<td>30.7</td>
<td>26.6</td>
</tr>
<tr>
<td>Share ownership</td>
<td>4.3</td>
<td>5.1</td>
<td>7.7</td>
<td>10.9</td>
<td>11.8</td>
</tr>
<tr>
<td>Profit share scheme</td>
<td>32.5</td>
<td>33.3</td>
<td>31.9</td>
<td>30.7</td>
<td>30.3</td>
</tr>
<tr>
<td>Performance of the team</td>
<td>23.8</td>
<td>26.6</td>
<td>31.1</td>
<td>30.7</td>
<td>31.1</td>
</tr>
<tr>
<td>Individual performance</td>
<td>44.4</td>
<td>44.8</td>
<td>46.8</td>
<td>45.8</td>
<td>43.9</td>
</tr>
<tr>
<td>Results</td>
<td>22.5</td>
<td>38.9</td>
<td>41.5</td>
<td>42.1</td>
<td>41.5</td>
</tr>
</tbody>
</table>
Main results

Wage flexibility: main results

Intensity of use:

i. Types of WF/countries (% establishment): no common patterns
   • Individual performance: DEU and UK
   • Results (for example piece rates, provisions, brokerages or commissions): FRA, ESP and UK
   • Performance team: FRA, UK and ESP

   • Profit share scheme and share ownership: FRA and GER
Main results

Wage flexibility: main results

Change since 2010 by:

i. Countries: ESP>DEU>UK>ITA>FRA (distributive bargaining)
ii. Establishment size: large
   • France is an exception. Small establishment has introduced more WF
iii. Sector/country
   • ESP, DEU: Commerce and hospitality
   • UK: Industry
   • ITA: Finance
Wage flexibility: main results

• Change in WF and economic cycle relation by countries and sectors
  - Low level of correlation between economic situation and WF changes since the beginning of 2010, by sector and countries

• Change in IFF and the introduction of new technology
  - High level of positive relationship in all sector
  - OBS: it not means causality.

• Change in IFF and Wage Bargaining Level: no clear relation
MAIN RESULTS: Probit analysis
MAIN RESULTS: Probit analysis

The previous analyses do not produce definitive results regarding the main determinants of changes in the internal flexibility of the countries and sectors. Therefore, a probit model complements the study to estimate the main determinants of changes in the three different types of internal flexibility at the company level in the five countries.

We estimated one model for the EU15 and five for the countries considered. The main results are:
**Probit analysis.** The main purpose of the model is to estimate the probability of change in one of the three types of internal flexibility, controlled by a series of sectoral variables, the company size, the economic cycle, technology, and wage-bargaining level, expressed in the following equation:

\[ P(Y_i = j) = f(\beta_k X_j, ..., \varepsilon_i) \]

where:

- \( Y_{ij} \) assumes the value 1 when establishment \( i \) has introduced a change in the internal flexibility of type \( j \);
- \( X_i \) represents the explanatory variables which are:
  - Technology, reflecting whether the establishment has introduced changes in the use of technology;
  - Wage-bargaining, which can be at the level of occupation (reference), establishment / company (necoempresa), sectorial / regional (necosector) and national (neconational).
  - Economic cycle variables; employment, represented in three dimensions: employment increase, employment decrease, and employment stability (reference).
  - Sectoral variables: Industry (reference), construction, commerce and hospitality, transport and communication, financial services, and other services;
  - A country dummy for each of the EU15, with Belgium as the reference, and
  - Establishment size: small (from 10 to 49 workers; reference); medium (50 to 249 workers); and large (more than 250 workers).
MAIN RESULTS: Probit analysis

The main results of the analysis for the five countries estimations are:

1. The changes in the use of technology are the main determinant of changes in the three types of internal flexibility for all countries.

2. The economic cycle has positive effects on the likelihood of change in all types of estimated flexibility and different model specifications.
3. In terms of establishment size, there is considerable heterogeneity between countries.

- In Spain, for example, establishment size is statistically significant for determining the probability of changes in numerical and wage flexibility, being higher in medium and large establishments than in small ones.
- In Germany, establishment size is not significant for almost any of the equations, only for large establishments in numerical internal flexibility.
- In France, establishment size is not statistically significant as a determinant of internal flexibility.
- In Italy, only medium-sized establishments are statistically significant.
- In the United Kingdom, the estimates show a behavior similar to that of Spain, with the exception of medium-sized establishments in the probability of changes in internal numerical flexibility, whose estimated coefficient is not statistically significant.
4. Regarding the wage-bargaining level:
   • In Spain and Italy, the wage-bargaining level has little effect on internal flexibility, with a few exceptions:
     • In Spain, wage bargaining at the sectoral/regional level reduces functional flexibility; however, it increases salary flexibility at the establishment/company level.
     • In Italy, wage bargaining at the national level increases the probability of changes in the internal numerical and wage flexibility.
   • In Germany, the wage-bargaining level seems to have more effect on functional and salary flexibility in a direction opposite to that expected by theory, i.e., the higher the wage-bargaining level, the higher the probability of introducing flexibility. There was no statistically significant relationship in internal numerical flexibility.
4. Regarding the wage-bargaining level:
   • In France, the wage-bargaining level has almost no influence on the probability of changes in functional flexibility;

   • In the United Kingdom, the wage-bargaining level has effects on internal flexibility, and negotiation at the national level increases the likelihood of changes in all types of internal flexibility; yet, negotiation at the sectoral/regional level increases the rigidity in internal numerical flexibility.
5. In terms of the economic sectors, we fail to see a clear or homogeneous relationship among countries in the different models.

• In Spain, the commerce and hospitality sector and the financial sector have a greater probability of changes in internal flexibility;

• In Germany, these same sectors are likely to reduce internal flexibility;

• There are no significant differences between sectors of economic activity in Italy and the United Kingdom;

• In France, the results are contradictory, because belonging to the financial-services sector increases the probability of changes in wage flexibility, but reduces the probability of changes in internal numerical flexibility.
Conclusions
• Spain and Italy made the most changes in internal flexibility since 2010: development of new instruments.

• This response is more intense in medium and large establishments.

• By sector of activity, changes have been more frequent in German industrial establishments; in the Spanish and French commerce and hospitality sectors; and in the Italian and UK financial sectors.

• These changes are more intensely related to the economic cycle, labor productivity, and the introduction of new technologies.

• The wage bargaining level does not have an apparent statistical relationship.

• The interviews and the probit model we conducted with the main trade unions and business associations corroborated these results.
¡GRACIAS!
EU Countries, Trade union density. 2000, 2010 and 2013

Sources: ICTWSS Database; European Commission (2016).

Sources: ICTWSS Database; European Commission (2016).
EU Countries, Collective Bargaining Coordination. 2000, 2010 and 2014

Sources: Visser Data Base
Main Results

EU Countries. Collective Bargaining Predominant Level

Sources: Visser Data Base