

Reply to the first referee report

Comments i) and ii)

First of all, we would like to thank the reviewer, for its comments and recommendations that surely will contribute to improve the result of our research and, consequently, of the paper.

Related to the first and second comments of the reviewer, we absolutely agree and following the recommendations, we will try to explain our point of view. Footnote 1 on the paper stated: "Following the Gumbrell-McCormick and Hyman (2013) classification, we choose one country classified as central (Germany), three south countries (France, Italy and Spain) and the UK as member of liberal market economy (LME)", in an attempt to explain the selection of these five countries. That choice was done in order to cover the diversity of different European industrial relations tradition, as explained by the theory of Variety of Capitalism of Hall and Soskice (2001) and updated by Gumbrell-McCormick and Hyman (2013). In addition, and this is the main reason for the election, these five countries are the biggest European countries, in terms of GDP, employment and industrial complexity.

Thus, to support the decision, the economic relevance of these five countries, according to GDP and employment, was a crucial aspect. In 2013 the Germany, Spain, France, Greece, Italy and the United Kingdom, weighted up to 77 percent of the EU15 GDP and above 78 percent of the total 15EU employment (from Eurostat data).

GEO/TIME	Gross domestic product at market prices (Current prices, million euro)			Total employment (resident population - LFS) Thousand persons (15-64)		
	2007	2013	2018	2007	2013	2018
European Union - 15 countries (1995-2004)	12.062.313,0	12.517.879,4	14.483.534,0	171.984	167.796	178.129
Belgium	343.618,9	392.880,0	459.819,8	4.348	4.485	4.699
Denmark	233.383,3	258.742,7	301.340,9	2.759	2.622	2.785
Germany	2.499.550,0	2.811.350,0	3.344.370,0	37.397	38.640	40.636
Ireland	197.202,0	179.661,3	324.038,2	2.177	1.885	2.180
Greece	232.694,6	180.654,3	184.713,6	4.476	3.459	3.751
Spain	1.075.539,0	1.020.348,0	1.202.193,0	20.437	17.002	19.136
France	1.941.360,0	2.117.189,0	2.353.090,0	25.459	25.546	26.180
Italy	1.614.839,8	1.612.751,3	1.765.421,4	22.517	21.755	22.586
Luxembourg	37.178,9	46.499,6	60.053,1	203	236	278
Netherlands	619.170,0	660.463,0	774.039,0	8.057	8.104	8.543
Austria	283.978,0	323.910,2	385.711,9	3.864	4.030	4.241
Portugal	175.483,4	170.492,3	203.896,2	4.756	4.158	4.615
Finland	187.072,0	204.321,0	234.453,0	2.459	2.403	2.465
Sweden	356.548,7	440.191,2	471.207,9	4.453	4.554	4.910
United Kingdom	2.264.694,5	2.098.425,7	2.419.185,9	28.622	28.917	31.112
5 countries	9.395.983,3	9.660.064,0	11.084.260,3	134.432,0	131.860,0	139.650,0
% 5 countries / 15EU	77,9	77,2	76,5	78,2	78,6	78,4

The reviewer comments *“(iii) Conclusion - The Global Financial Crisis and the Great Recessions were mainly determined by financial sector structural imbalances. Consequently, authors should consider in future research to incorporate financial variables to control such influence in the regressions. In this particular paper, employment was the proxy used to control for the “economic situation” (p.10). It is debatable if this was the better choice. Perhaps, results would be different if a proper financial variable was introduced. Author(s) should mention such potential limitation and explore the opportunity to advance alternative estimations in the future.”*

We also agree with this third recommendation of the reviewer and the observation that “The GFC and GR were mainly determined by financial sector structural imbalances”. Related to the aims of our papers, we have represented the GR in terms of unemployment for several reasons, as we explained on page 11 of our paper: “Economic situation variables. Of the three possible economic-situation variables, i.e., employment, production, and finances, we decided to use only employment because of its greater effect on labor relations and the existence of multicollinearity with the other two variables. The employment variable has three dimensions: increase, decrease, and stability”.

In other words, the unemployment variable summarized the effect of all three variables. Having to choose one of those three variables, we decided to use employment as a proxy of “economic situation” that has a relation with the main objective of our paper.

Another important aspect of our decision refers to the limitations of the database. The database only allows us to measure changes in the level of employment, product and finance situation since 2010, as is possible to observe on the questions Q7, P4 and P8 of the ECS 2013 questionnaire (See https://www.eurofound.europa.eu/sites/default/files/ef_files/surveys/ecs/2013/documents/unitedkingdommm.pdf)

“Q7. BCHEMP Since the beginning of 2010, has the total number of employees in this establishment increased, decreased or stayed about the same?

- Increased 1 CONTINUE
- Decreased 2 CONTINUE
- Stayed about the same 3 CONTINUE
- [Don't know] 8 CONTINUE
- [No answer] 9 CONTINUE”

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“P4. KFINANCH Since the beginning of 2010, has the financial situation of this establishment...

- Improved 1 CONTINUE
- Worsened 3 CONTINUE
- [Remained about the same] 2 CONTINUE

- [Not applicable] 7 CONTINUE
- [Don't know] 8 CONTINUE
- [No answer] 9 CONTINUE"

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"P8. KGOSEPR Since the beginning of 2010, has the amount of goods and services produced by this establishment ...

- Increased 1 GO TO SECTION L
- Decreased 3 GO TO SECTION L
- [Remained about the same] 2 GO TO SECTION L
- [Not applicable] 7 GO TO SECTION L 30
- [Don't know] 8 GO TO SECTION L
- [No answer] 9 GO TO SECTION L"

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As the database is related to at establishment level and the finance effects are more related to the company or even to the group of a company; so, this variable could not represent the real financial situation of the establishment. Moreover, the questionnaire does not explain in detail the meaning of "financial situation" asked in the question P4.

The use of that variable would require an analysis out of the objective and framework of all paper; and for sure, results not related to the effect of industrial relation change during the GR. However, it remains being a very important research topic for the future. Nowadays still having few studies show evidence and analyzing the relationship between company finance situation and industrial relation, even from a theoretical perspective.

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