The effects of institutional instability in collective bargaining: a long-term analysis of changing collective bargaining actors and structures

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1 Introduction

This article takes up a classical theme in political economy and institutional economics – the consequences of institutional change – by analyzing the impact of changes to the institutional structures of collective bargaining on macroeconomic performance. Changes to collective bargaining structures, i.e. in the level, domain and form of coordination of bargaining among different actors, have been pervasive across industrialized countries in recent decades. Not least since the advent of the current economic crisis where in many European countries collective bargaining has been changed on the basis of recommendations by the European Commission, the European Central Bank and the International Monetary Fund, the so called Troika (Marginson, 2014). However, the theoretical and empirical foundation for the effects of these and other changes in collective bargaining structures are unclear. In part, this is due to the fact that the effect of any change itself has largely been neglected in existing studies.

One strand of literature on the relationship between collective bargaining institutions and socio-economic aggregates has attempted to assess the impact of particular bargaining structures on various direct outcome variables of collective bargaining such as wage increases and labor costs, as well as on related macro-economic indicators or concepts such as competitiveness, (un)employment, inflation, and (wage) inequality (e.g., Brandl, 2012; Calmfors and Driffill, 1988; Iversen, 1998; Johnston, 2012; Soskice, 1990; Traxler and Kittel, 2000). Another strand has focused on the change or resilience of institutions for collective bargaining facing changing socio-economic and technological conditions (e.g. Crouch, 1993; Hall and Soskice, 2001). The axis of contention in the former has thus been which institutional struc-

tures performed relatively better in terms of particular macroeconomic goals, while the axis of the latter has been the existence, direction and causes of institutional change. Somewhere in between the two, the issue of macroeconomic impacts of institutional change itself has thus been largely ignored or assumed. For the first strand, this has probably been because after decades of theoretical and empirical debates there is still no widely agreed consensus on which institutional structure is associated with the comparatively "best" performance (e.g. Brandl, 2012), so that the focus on analyzing effects of the structure itself is still challenging and required. For the latter, the cost of change has been theoretically assumed by many scholars seeing path-dependence in bargaining structures (Hall and Soskice, 2001) or, alternatively, it is the direction and causes of change – rather than the effects – that receive attention (e.g. Baccaro and Howell, 2011; Thelen, 2014).

In this article we explain and argue that in most countries collective bargaining structures have changed considerably over time and these changes have come with non-negligible macroeconomic costs, at least in the short-to-medium term. Theoretically, we argue that these costs arise due to the disruption of mutual trust between the actors involved in collective bargaining. We argue further that mutual trust between actors is of vital importance for the efficacy of collective bargaining so any disruption of trust impairs their efficacy. Consequently the costs of the change are defined here as the impaired efficacy due to the change. We propose that institutional stability fosters trust between all actors involved in collective bargaining by creating mutual expectations about behavior which forms the basis for stable wage determination and the provision of an important public good, i.e. for wage moderation. Institutional change might therefore lead to short-to-medium term collective action problems (Farrell, 2009) and increased transaction costs in labor markets (North, 1990).

Empirically, we analyze the relationship between institutional change and macroeconomic performance using a Time-Series-Cross-Sectional analysis on the basis of yearly data from 1965 to 2010 of 33 countries on two key macroeconomic indicators; inflation and the unemployment rate. The article is organized as follows. Following this introduction, we review the relevant literature on collective bargaining structures and macroeconomic performance and develop our theoretical arguments on how institutional change affects the efficacy of collective bargaining. Next, we present the methodological and empirical strategy for testing the hypotheses. Finally, we conclude the analysis and discuss the implications of our study in the context of current theoretical and empirical debates together with the implications for policy-makers attempting to reform labor market institutions.

2 Impact of collective bargaining structures, institutional change and trust

One major economic goal for policy makers in industrialized economies is to maintain or even increase the *'competitiveness'* of their economies. In this economic policy context, one key function of collective bargaining institutions is ensuring that wages are aligned or even slightly below productivity increases, i.e. that they produce wage moderation. The idea behind wage moderation is that companies in the economies are able to maintain or even increase their competitiveness and in the end, from a macroeconomic perspective, low inflation and high employment are ensured. Scholars disagree over the relationship between different collective bargaining structures and the desired macroeconomic outcomes.

The standard theoretical argument – based on Mancur Olson (1965) – is that encompassing bargaining structures cannot externalize the negative consequences of pay increases, so they are forced to moderate them. There is, however, disagreement about what encompassment means procedurally and institutionally. One position relates to the level at which pay agreements are concluded, and thus equates encompassment with bargaining centralization. The original thesis associated with corporatist theory was that beneficial effects of collective bargaining institutions monotonically increase with the degree of encompassment (e.g., Bruno and Sachs, 1985). The other position argues that economy-wide coordination of lower-level bargaining also ensures encompassment in a way analogous to centralized bargaining (Soskice, 1990). Both positions, however, concur in assigning superior capacity for internalizing pay externalities to the level of the peak associations of business and labor since their membership domains are most encompassing. The counter position presents a hump-shape argument which contends that extremes (i.e. centralized/coordinated and decentralized/uncoordinated structures) both outperform industry-level bargaining structures as the latter work as performance-inhibiting cartels (Calmfors and Driffill, 1988).

However, as stressed in subsequent debates, the effects of collective bargaining depend upon additional contextual factors such as the monetary policy regime, the organizational structure of actors and compliance between actors (e.g., Calmfors, 1993; Iversen, 1998; Johnston, 2012; Traxler and Brandl, 2012). Compliance problems horizontally between different actors and vertically between differing bargaining levels potentially increase the greater the distance of an agreement from the bargaining levels which the agreement claims to cover. Empirical analysis has found that peak-level agreements are highly effective in pay moderation only when they are vested with governability (i.e. institutional means of controlling lower-level pay-setting). Otherwise, they perform no better than any other bargaining structures (Traxler and Kittel, 2000).

The proposition that peak-level arrangements compel the bargaining actors to internalize negative externalities fully applies to closed economies only (Calmfors and Driffill, 1988; Calmfors, 1993). In conditions of economic openness, especially in tandem with a fixed exchange rate, the incentive for pay moderation decreases under peak-level bargaining, as this economic situation creates the opportunity for sheltered sectors to externalize pay hikes. According to the advocates of the hump-shape thesis, the hump-shape becomes flatter under these circumstances, but will nevertheless hold. This is questioned by Traxler and Brandl (2012). They argue that economic openness transforms the calculus of peak-level bargaining from an economic into a political question: faced with the interest cleavage between the exposed sector (e.g. manufacturing) and the sheltered sector (e.g. construction or public sector), the peak-level trade union organization will unify these conflicting interests so that political support for its policy is maximized. This implies choosing a policy line which favors the "median affiliate", i.e. the trade union which provides the peak-level trade union with majority support. Since the position of the median affiliate in the divide between the sheltered and exposed sector is contingent on the membership composition of the peak-level trade union, the performance of peak-level arrangements is argued to be indeterminate. The theoretical and empirical finding is that intermediate and decentralized structures if coordinated by the exposed sector – for example via pattern bargaining (Ibsen, 2013) – significantly outperform other arrangements (Traxler and Brandl, 2012).

3 The role of trust in collective bargaining

With the exception of a few studies emphasizing the (informal) politics of bargaining (e.g., Ibsen, 2013; Traxler and Brandl, 2012), the link between macroeconomic performance and the structures of collective bargaining revolves around formal coordination and compliance procedures among actors. By contrast, Farrell and Knight (2003) argue that mutual trust among actors can be a sufficient mechanism for coordination and compliance in order to ensure the production of collective goods, such as wage moderation. If compliance is neither existent nor effective however actors can never be entirely sure if other actors will not defect from wage moderation. Such a situation is typical in collective bargaining structures in which many actors are involved. Horizontal collective bargaining, for example, is rarely supported with formalized sanctions of non-compliance except in countries with strong centralized bargaining. As noted on the cleavage between exposed and sheltered sectors, this introduces an element of risk in the production of wage-moderation and actors in one industry will have to make a *'leap of faith'* when moderating their own wages since they cannot be sure that other industries will comply. This *'leap of faith'* rests completely on mutual trust. Thus mutual trust is focal for

the efficacy of collective bargaining and consequently for the ability to achieve beneficial goals.

It is striking that countries with institutional structures of collective bargaining in which compliance rests heavily on such *'leaps of faith'*, such as for example Austria, Denmark, Finland, Germany, Norway, and Sweden, usually perform above average economically (e.g., Brandl, 2012; Soskice, 1990; Traxler and Kittel, 2000). So the existence of trust in collective bargaining can be considered as focal and a loss (or disruption) of trust can be expected to minder the efficacy of collective bargaining. While trust is often mentioned in studies of collective bargaining (e.g., Fox, 1974; Walton and McKersie, 1965) its role in establishing and sustaining mutually beneficial outcomes, e.g. wage moderation, is usually not empirically addressed.

However, there exist various advanced theoretical discussions about the role of trust in public goods provision. Farrell (2009) and Farrell and Knight (2003) convincingly show that institutions actually promote trust and trustworthiness leading to production of collective goods. In the first step, this entails recognizing that institutions are not merely formally sanctioned rules that serve a well-specified function. Rules cannot be assumed to be entirely clear or do not fit the specific situation leaving room for interpretation by actors. Instead institutions convey information about the expected behavior of certain actors in certain situations. Formally, we can state that A trusts B when actor B is expected to do X in situation Z. If B fails to do X, this will be visible to actor A and there can be material or normative sanctions. However, as long as B knows about the visibility of her actions, it is in her interest to do X. Thus, A (for example a union in manufacturing) can trust B (a union in construction) to do X (moderate wages) in situation Z (economic boom) because it is in B's interest to do so due to institutionalized procedures for wage bargaining. This is exactly what Hardin (2002) describes as "encapsulated interests". That is, A trusts B regarding Z, because in the matter Z, the interests of B encapsulates the interests of A. Institutions furthermore convey information about what B's intentions are and what B is doing. This transparency makes it possible for A to follow B, enhancing the trustworthiness of B. In turn, B knows that A trusts B, making A trustworthy in relation to production of collective goods. Thus, mutual expectations about behavior are formed (Farrell, 2009).

All institutional structures of collective bargaining pertain to distinct procedural rules and norms which are shared among actors and define the process of bargaining as well as the connection between bargaining areas and bargaining levels. In each structure, three main trust relationships between actors in different areas and levels exist. The ability to build up trust along these three channels which are needed to produce collective goods differs however in different institutional structures. Firstly, there is a trust relationship between the two sides in the employment relationship, i.e. between employers and unions within each bargaining unit.

The second trust relationship refers to bargaining units at different levels – ranging from single-employer, multi-employer to cross-sectoral bargaining structures (Clegg, 1976). On different levels, the rules and norms regarding coordination define further characteristics of the institutional structure. Thirdly, there is a trust relationship horizontally, i.e. across bargaining units on the same level. However, the rules and norms in the interaction between actors along the three relationships can be very different in different institutional structures – all associated with differences in their ability to enable actors to build up and maintain mutual trust. We expect that changes in any dimension, i.e. in the institutional structure, will disrupt trust between actors and thus erode the production of collective goods with possible negative macroeconomic consequences (Farrell, 2009). Note that these issues are independent from the question of which institutional structure enables which degree of trust among actors and thus which structure results in which economic performance.

4 The costs of institutional change and the loss of mutual trust

We argued that mutual trust is of vital importance for the efficacy of collective bargaining and any disruption of trust impairs the efficacy of bargaining. On the basis of this, we defined the costs of the institutional change by the impaired efficacy due to the change. Theoretically, the costs of institutional change have been addressed in the literature in different ways and from different perspectives. For example Brandl and Ibsen (2015) argue on basis of shifting power relations that institutional change of collective bargaining structures implies costs and hinders the efficacy of collective bargaining. From a more general perspective, path-dependence theory based on increasing returns posits that actors will refrain from changing institutions due to large fixed costs, learning effects, coordination effects and adaptive expectations (Pierson, 2004). Whilst devised to explain institutional stability, the same mechanism of collective learning and adaptation applies in our account. As Pierson states (2004, p. 38): *"The point is not that learning never occurs… Rather, learning is very difficult and cannot be assumed to occur."* In other words, institutional change will have costs as actors scramble to re-adjust mutual expectations about behavior needed for collective action to occur. The difference compared to Pierson's account is that we are not trying to explain stability or change itself but rather want to know the effects of institutional change ex post.

Another perspective on the costs of institutional change comes from theories on institutional complementarity. Most notably, Hall and Soskice's (2001) Varieties of Capitalism framework is built around institutional complementarity according to which configurations of institutional spheres produce synergies, i.e. enhance the performance effect of each other. A change in one sphere would therefore jeopar-

dize complementarity and have negative macroeconomic effects. The complementarity-thesis has been criticized for lacking empirical support (e.g., Deeg, 2007). Without discussing this further, it suffices to note, that a trust-based explanation of costs from institutional change is not incompatible with the complementarity-thesis. Indeed, the trustworthiness of actors in one institutional sphere might be disrupted by institutional change, leading actors in other institutional spheres to defect from collective action. This might lead to cumulative negative effects. As with increasing returns, however, the complementarity-thesis is devised primarily to explain stability rather than the effects of changes, although negative effects of change are inherent in the hypothesis.

As regards collective bargaining here in this work, the cost of change originates in the disruption of trust among actors due to the change. Because actors are not fully cognizant of the effects of new institutions due to the erosion of mutual expectations there will always be some costs of institutional change. Typically, changes to collective bargaining structures imply vertical and horizontal re-ordering of bargaining units and levels. Hereby, bargaining actors are substituted for others and there is little information about how new actors have acted in the past and therefore how they will act in the future. The consequence of these changes is that it might lead negotiators to focus on distributive concerns rather than integrative concerns that can undermine wage-restraint (Walton and McKersie, 1965). Horizontally across industries, institutional change might disrupt trust that sheltered sectors will moderate wages. If bargaining parties are concerned about relative earnings – which they typically are (Elster, 1989) – this might spur unions in other industries to take out higher wages. Vertically, a change in bargaining institutions might also spur ambiguity about what to expect of bargaining at other levels, which in turn spurs a breakdown of the "division of labor" between bargaining levels. This is particularly likely in processes of decentralization where more bargaining autonomy is delegated to the company level or vice-versa under centralization, when lower level actors continue to bargain wage increases on top of central increases.

The sources for disruption of trust are thus multiple and pertain to both moves to centralize and decentralize. Firstly, as noted, unions concerned about relative earnings will take out a risk-premium of higher wages to prevent falling behind. In turn, this might spur a wage-inflation spiral with other unions making compensatory claims. Secondly, employers unsure about the consequences of institutional change might be cautious about hiring until the effects of changes are known. A key function of collective bargaining for employers is precisely that the price of labor is known for a foreseeable future which makes personnel planning possible (Swenson, 2002). So, even institutional change that favors employers might have negative employment effects, because companies will delay employing until the price of labor is clearly known in order to reduce opportunity costs. This means that complete decentralization might also lead to performance losses – contrary to neo-classical

assumptions. Moreover, complete decentralization could spur a higher level of industrial conflict because of shifting power relations also leading to performance loss (Brandl and Ibsen, 2015). As a corollary, even supposedly performance-enhancing institutional change, for example from low compliance horizontal bargaining coordination to high compliance bargaining coordination, might – ceteris paribus – lead to performance losses.

There are, therefore, multiple reasons why change in collective bargaining structures, all other things being equal, is costly. Trust, moreover, has an important and strong temporal dimension. The question is how costly and how long it takes to fully restore the efficacy of the new institutional structure. Independent of the magnitude and duration of the cost effect, it can be assumed that the more changes the more costs accumulate. Consequently, institutional instability – that is, multiple changes – are associated with negative effects. Arguably, these negative effects of institutional change and instability will most often be temporary as actors readjust agency to new institutions, build up new mutual expectations of behavior and foster trust again. However, as the literature on trust has established, trust takes considerably longer to build up than to break down (Braithwaite and Levi, 1998; Farrell, 2009). In contrast to previous studies focusing on the effects of different institutional configurations on macroeconomic performance, we therefore expect considerable initial costs from institutional changes when trust based on mutual expectations about behavior breaks down.

5 Data, modelling strategy and empirical analysis

In order to test our hypothesis of the effects of institutional change and instability we use a data set which covers 33 countries and spans a period from 1965 to 2010. Our sample differs from those used in other studies of the effects of different institutional collective bargaining coordination structures (e.g. Brandl, 2012; Calmfors ans Driffill, 1988; Soskice, 1990; Traxler and Kittel, 2000) as it considers a significantly higher number of countries and a longer time period. The large number of countries covers a wide range of very different institutional structures and contextual factors in which collective bargaining takes place. In the following analysis we test the effect of the institutional instability variable on inflation and unemployment rates. Both dependent variables are derived from literature and have become standard indicators for the performance of collective bargaining structures in comparative literature. Arguably, other indicators such as for example labor costs and income equality are important but we concentrate on indicators directly related to predominant debates (e.g. Calmfors and Driffill, 1988).

We are interested in the effects of instability of the institutional structure of collective bargaining and not primarily in the effects of the different institutional structures. Thus the focal explanatory variable in this study is a measure of institu-

tional instability. We base our measure of instability on basis of changes in the categorization of collective bargaining coordination by Visser (2014). The categorization is based on variations in the level on which collective bargaining takes place, the actors involved and the extent of coordination among actors within a particular institutional framework. The categories are: (i) company wide and uncoordinated bargaining; (ii) company wide, but weakly coordinated bargaining; (iii) industry wide but uncoordinated bargaining; (iv) industry wide and coordinated bargaining; (v) economy wide bargaining. According to the above theoretical reasoning, any change in a country from one of the above institutional structures to another implies negative effects on the efficacy of collective bargaining. The more changes in the institutional structure, i.e. the higher the institutional instability, the more hindered is the efficacy.

Any change from one category to another in one year to another implies that different actors, on different levels and with different relationships, are involved in collective bargaining. Consequently we operationalize our instability measure by defining a change in a country from one year to another from a particular institutional structure to another as one change which is numerically expressed by 1. We moreover, hypothesize that neither the direction of change (e.g. change to higher or lower levels) nor the magnitude of change (i.e., overleap of categories) is important. What matters is that the institutional structures and the relevant trust relationships have changed. Neglecting the direction of change theoretically might seem controversial, but as explained, the efficacy of collective bargaining in any institutional structure rests on mutual trust between actors and the trust relationship is disrupted independently of the direction of change.

As building up trust takes time, i.e. will take some years, it is likely that the effect of the institutional change continues to have an effect in the following years. It is also reasonable to expect that the effect of the change continuously fades over time as actors start to restore and build up trust again from year to year. In other words it is likely that actors will align their expectations to the new rules of the game in the new institutional structure over time. Thus the past casts a shadow over the efficacy of collective bargaining in the years following the change but the negative effect weakens over the years. However, there are no theoretical or empirical evidences available regarding the length of the *shadow of the past*. Therefore, we consider and test in our analysis alternative "operationalizations" of such a shadow of the past. We concentrate here on three versions: in the first we suppose that trust is restored in the year following the change so that there is just a one year "shock" following the change. In version two however we suppose that trust is gradually restored two years after the institutional change. Thus the instability variable is defined by considering the impact of institutional change by 1 in the year the change occurred $(t_0=1)$ and in the following two years. But, in the following year (t_1) the effect of the change is weaker. The weaker effect is numerically expressed and mea-

sured by 0.8 $(t_1=0.8)$. In the second year after the change the effect shrank to 0.4 $(t_2=0.4)$. In the third year after the institutional change there is no effect $(t_3=0)$ as it is assumed that trust has been fully built up again. Building up trust in two years is an optimistic perspective of the effect of institutional change on collective bargaining coordination. Therefore, in version three we assume that building-up trust takes longer, i.e. there is a four year shadow of the past and the effect declines at a constant rate in the four year period after the institutional change: $t_0=1$, $t_1=0.8$, $t_2=0.6$, $t_3=0.4$, $t_4=0.2$, $t_5=0$.

Repeated changes increase the institutional instability further as the effect of change accumulates. While the operationalization of version one corresponds with a "simple" dummy variable approach, the variable for the shadow of the past of 2 and 4 years leads to variables with a relative high variance over time. Our institutional instability measure considers all institutional changes by adding the effect of any new changes to the previous changes.

In addition to the focal explanatory variable, several more groups of variables enter the models in order to control for other possible factors affecting the dependent variables. The first category relates to the economic context and includes yearly (i) economic (GDP) growth, (ii) change of the exchange rates (to US Dollar), (iii) change in the terms of trade, (iv) change in the openness of the economies defined by countries' imports and exports, and (v) inflation for explaining the unemployment rate and vice versa the unemployment rate for inflation. All these variables aim to control for different economic situations in which collective bargaining and institutional change takes place. The second category of control variables relates to other aspects of the industrial relations system and includes (i) trade union density, (ii) the fragmentation of the union system, and (iii) the existence and relevance of extension practices in collective bargaining. Closely related to the second category is the third category which relates to the institutional structure of collective bargaining coordination and includes the coordination structure and collective bargaining coverage. The variable coordination structure controls for the effect of the institutional structure itself. The fourth category of variables includes the remaining controls for other relevant factors. Besides a constant it includes lags of the dependent variables (Y_{t-n}) in order to control for serial-correlations, and a dummy variable for the structural break in Germany due to the unification. In addition, the Hausman-test suggests the consideration of fixed-effects (FE) so that in all models a full set of country dummies enter the models. In order to test the robustness of the models, different lag structures of the independent variables were tested and further control variables were included and excluded. We also tested whether or not the effect of the collective bargaining structure is non-linear. Further tests were made on the timings of change, i.e. in which exact year the collective bargaining structure is different. All robustness checks support the results shown.

The models certainly raise concerns about endogeneity. Theoretically, it seems intuitive that the change in the institutional structure of collective bargaining is induced by a weak economic performance. To control for this, we apply a Two-Stage-Least-Square *(TSLS)* estimation approach and use a change in union authority as an instrumental variable. A change in union authority is likely to affect our key independent variable but does not directly affect inflation and unemployment. We explicitly report the tests of three different versions of the instability variable: the instability variable with no shadow of the past, and a shadow of 2 and 4 years. Table 1 documents the results of the TSLS estimation for all versions of the model for both dependent variables.

Beginning with the effect of institutional instability, table 1 shows that for both dependent variables and in all model variations, the hypotheses are confirmed. The more often the institutional structure of collective bargaining is changed and thus the higher the institutional instability, the higher the unemployment rate and the higher inflation. As this effect holds for all models and for both dependent variables, the conclusion can be drawn that institutional change in collective bargaining is costly and causes negative economic effects which should be considered in any attempt to reform collective bargaining. At least in the short run, i.e. up to 4 years after the institutional change, it is likely that the clear negative effect of the instability is not compensated for by the new institutional structure.

The general effect of the institutional bargaining structure is less clearly supported. The evidence shows that only the unemployment rate is affected by the institutional structure. For inflation, no such significant effect of the degree of coordination of collective bargaining can be observed. However, this mixed empirical support for the relevance of the institutional structures of collective bargaining might be explained by the fact that much of the explanatory power of these effects is captured by the country fixed-effects. Regarding the other controls, we see that most other industrial relations variables do not appear to have an impact on both dependent variables; only for the unemployment rate is there an effect of union density. In sum, the effects of the control variables confirm standard expectations. However, the upshot of the empirical analyses is that institutional instability has a clear negative effect on unemployment and inflation.

Table 1: The effects of institutional stability on inflation and unemployment, 33 countries, 1965–2010

Dependent var::	Unemployment rate			Inflation		
Shadow of past:	(1) No	(2) 2 years	(3) 4 years	(4) No	(5) 2 years	(6) 4 years
Instability	4.577***(1.486)	2.998***(0.963)	2.779***(0.907)	3.817**(1.867)	2.578**(1.295)	1.862*(1.122)
Structure	-0.180**(0.086)	-0.171**(0.080)	-0.145*(0.081)	-0.137(0.087)	-0.128(0.083)	-0.087(0.070)
Coverage	-0.002(0.010)	-0.008(0.010)	-0.013(0.012)	-0.002(0.009)	-0.007(0.010)	-0.008(0.011)
Union density	0.074*(0.040)	0.077*(0.043)	0.113**(0.048)	0.050(0.038)	0.050(0.043)	0.068(0.050)
Fragmentation	0.043(0.088)	0.077(0.088)	0.116(0.104)	0.106(0.086)	0.127(0.092)	0.128(0.096)
Extension	0.146(0.263)	0.237(0.241)	0.175(0.252)	0.317(0.253)	0.396(0.258)	0.271(0.246)
Inflation	0.075(0.051)	0.006(0.065)	-0.012(0.077)	-	-	-
Unempl.rate	-	-	-	-0.179**(0.088)	-0.186**(0.092)	-0.205**(0.097)
ToT	-0.025*(0.015)	-0.028*(0.015)	-0.026*(0.016)	-0.012(0.015)	-0.015(0.016)	-0.013(0.015)
Openness	0.101(0.193)	0.074(0.188)	0.007(0.199)	-0.121(0.196)	-0.142(0.192)	-0.254(0.173)
Exchange rate	-0.013(0.008)	-0.009(0.009)	-0.009(0.010)	0.013(0.012)	0.017(0.013)	0.016(0.012)
Eco. growth	-.186***(0.025)	-.187***(0.024)	-.186***(0.026)	0.085***(0.029)	0.083***(0.030)	0.091***(0.029)
Germany	0.473*(0.276)	0.435(0.279)	0.382(0.294)	0.054(0.208)	0.010(0.213)	-0.009(0.222)
Constant	1.093*(0.592)	1.127**(0.560)	1.136*(0.609)	0.176(0.541)	0.227(0.529)	0.194(0.500)
Y$_{-1}$	0.866***(0.026)	0.864***(0.025)	0.867***(0.027)	0.592***(0.060)	0.529***(0.085)	0.542***(0.093)
N x T	1003	999	976	1003	999	976
R-squ.	0.805	0.815	0.787	0.193	0.191	0.309
Adj. R-squ.	0.796	0.806	0.777	0.155	0.153	0.276

Note: ToT = Terms of trade. Eco. = Economic; Unempl. = Unemployment. Pooled time-series cross-section analysis, Two-Stage Least Squares (with variable union authority as instrument) with panel-corrected standard errors in parentheses. All variables are lagged by one year. In all the models a full set of country dummies is used; fixed effects (FE). ***$\alpha \leq .01$; ** $\alpha \leq .05$, * $\alpha \leq .1$. N x T: number of observations.

Source: European Comission Ameco 2013 database for inflation, unemployment, economic growth, exchange rate, openness, terms of trade. Visser (2014) for coordination structure, coverage, fragmentation, union authority and density.

6 Conclusions

The literature on the effects of different institutional structures of collective bargaining has until now focused almost entirely on the effects of the institutional structures themselves. Even though there is no widely accepted agreement upon which institutional structure is associated with the "best" performance, some of these studies have inspired policy makers in different countries to reform their national institutions of collective bargaining in order to achieve beneficial economic outcomes. However, the theoretical and empirical foundations for expecting positive macroeconomic results from these changes are not convincing. In part, this is due to the fact that the macroeconomic effect of change itself has largely been neglected in existing studies. In this article, we argue that change to collective bargaining institutions is costly because it leads to a disruption of mutual trust between the actors involved in collective bargaining. We explain that trust is of focal importance for the efficacy of collective bargaining as trust is needed for the provision of public goods, such as wage moderation. For this reason, any glitch in the various trust relationships between the actors involved is thus likely to lead to inefficient outcomes.

Using data for 33 countries during the period 1965 to 2010, we tested this hypothesis on the effect of institutional change, or institutional instability respectively, of collective bargaining on two "classical" indicators in the field: unemployment and inflation rate. The findings show that institutional instability is associated with negative effects. The analysis thus suggests that changes in collective bargaining institutions are costly. This effect is strong and robust for both inflation and unemployment. These findings imply that standard reasoning on the need for institutional reform of social dialogue clearly underestimates the costs of the reform itself. The results in this work also show that institutional change in the "better" direction does not necessarily lead to better economic outcomes per se! Any positive effect from a better performing institutional structure is likely to be dampened by the cost of the change – at least in the short-to-medium run.

As the negative effect of change is of a temporary nature – since mutual trust about expected behavior can be rebuilt – the results of this study do not support any deadlock in institutional reform. The same argument holds also for institution building. The results instead suggest that any new institutions of collective bargaining need time to establish their functioning. The actors involved in a new institutional structure need to learn the rules of the game, i.e. have to build up trust before full efficacy is achieved. It is likely that in completely new and innovative institutional environments this process takes even longer to occur than in a change from one "old" structure to a new one. The upshot of this is that patience in the functioning of new institutions of collective bargaining is necessary.

Looking beyond the time period studied in this analysis, the results are also able to shed new light on discussions of the success of recent changes and reforms in collective bargaining since the advent of the economic crisis. In various European

countries which have made bilateral agreements with the "Troika", changes were demanded in collective bargaining and implemented on a national basis. However, in all these countries, the reforms were not only accompanied by social unrest, which in itself lead to economic "inefficiencies", but the success of the reforms is also questioned, as economic indicators of "success" have not developed as expected. The results reported here do not exclude the possibility that the reforms were the correct policies to help these countries to recover and prosper economically in the long-run. However, they might explain how – even – if the reforms materialize and achieve the desired results in the long-run, it is unrealistic to expect observable positive effects in the short-to-medium term. This is because the inevitable negative effects of the change itself have dulled the positive effects of the reform so far. In fact, if the negative short-term effect is stronger than the expected positive effect of reform, the results may explain why many indicators in these countries, such as unemployment in particular, are even increasing. In addition, it might be likely that in a situation of economic uncertainty and social turbulence, the process of trust-building is more difficult so the negative effect prevails even longer, thus delaying any recovery in these countries further. Accordingly, one important implication of the study for policy making is that the timing of institutional reforms is crucial. Even if policy makers are sure (if this is possible) that the reform will prove to be successful in the long-run, it may be important for them to consider the situation in the short-run for the timing of their decision. They might have to balance a dilemma between, the sooner the reform, the sooner the long run positive effects vs. the situation getting even worse due to the short-to-medium negative effects.

Nonetheless, the results of this study clearly show that policy-makers should avoid changing collective bargaining institutions very often; institutional instability due to a series of changes leads to even higher costs. Our analysis shows that well-functioning collective bargaining institutions rest heavily on a stable institutional environment and stable relationships among actors.

References

Baccaro, L. and Howell, C. (2011). A common neoliberal trajectory: The transformation of industrial relations in advanced capitalism. Politics & Society, 20, 1–43.

Braithwaite, V. and Levi, M. (eds.). (1998). Trust and governance. NewYork: Russell.

Brandl, B. (2012). Successful wage concertation: The economic effects of wage pacts and their alternatives. British Journal of Industrial Relations, 50, 482–501.

Brandl, B. and Ibsen, C. L. (2015). Instability and Change in Collective Bargaining: An Analysis of the Effects of Changing Institutional Structures. Working Paper.

Bruno, M., and Sachs, J. (1985). The economics of worldwide stagflation. Oxford: Blackwell.

Calmfors, L. (1993). Centralisation of wage bargaining and macroeconomic performance. OECD Economic Department Working Paper 131. Paris, France. Retrieved from www.oecd.org/eco/growth/33945244.pdf.

Calmfors, L. and Driffill, J. (1988). Bargaining structure, corporatism and macroeconomic performance. Economic Policy, 6, 13–61.

Clegg, H. (1976). Trade unionism under collective bargaining: A theory based on comparisons of six countries. Oxford: Blackwell.

Crouch, C. (1993). Industrial relations and European state traditions. Oxford: Clarendon Press.

Deeg R. (2007). Complementarity and institutional change in capitalist systems. Journal of European Public Policy, 14, 611–630.

Elster, J. (1989). The cement of society: A study of social order. Cambridge: Cambridge University Press.

European Commission's Directorate General for Economic and Financial Affairs. (2013). Annual Macro-Economic Database (AMECO). Available at http://ec.europa.eu/economy_finance/db_indicators/ameco/index_en.htm

Farrell, H. (2009). The political economy of trust. Cambridge: Cambridge University Press.

Farrell, H. and Knight, J. (2003). Trust, institutions, and institutional change: Industrial districts and the social capital hypothesis. Politics & Society, 31, 537–566.

Fox, A. (1974). Beyond contract: Work, power and trust relations. London: Faber and Faber.

Hall, P. A. and Soskice, D. (eds.). (2001). Varieties of capitalism: The institutional foundations of comparative advantage. Oxford: Oxford University Press.

Hardin, R. (2002). Trust and trustworthiness. New York: Russell.

Ibsen, C. L. (2013). Consensus or coercion: Collective bargaining coordination and third party intervention. Copenhagen: University of Copenhagen.

Iversen, T. (1998). Wage bargaining, central bank independence, and the real effects of money. International Organization, 52, 469–504.

Johnston, A. (2012). European Economic and Monetary Union's perverse effects on sectoral wage inflation: Negative feedback effects from institutional change? European Union Politics, 13, 345–366.

Marginson, P. (2014). Coordinated bargaining in Europe: From incremental corrosion to frontal assault? European Journal of Industrial Relations, available online doi: 10.1177/0959680114530241

North, D. (1990). Instituions, institutional change and economic performance. Cambridge: Cambridge University Press.

Olson, M. (1965). The logic of collective action: Public goods and the theory of groups. New Haven: Yale University Press.

Pierson, P. (2004). Politics in time: History, institutions, and social analysis. New Haven: Yale University Press.

Soskice, D. (1990). Wage determination: The changing role of institutions in advanced industrialized countries. Oxford Review of Economic Policy, 6, 36–61.

Swenson, P. A. (2002). Capitalists against markets: The making of labor markets and welfare states in the United States and Sweden. Oxford: Oxford University Press.

Thelen, K. (2014). Varieties of liberalization and the new politics of social solidarity. Cambridge: Cambridge University Press.

Traxler, F. and Brandl, B. (2012). Collective bargaining, inter-sectoral heterogeneity and competitiveness: A cross-national comparison of macroeconomic performance. British Journal of Industrial Relations, 50, 73–98.

Traxler, F. and Kittel, B. (2000). The bargaining system and performance. Comparative Political Studies, 33, 1154–1190.

Visser, J. (2014). AIAS ICTWSS database. Amsterdam, The Netherlands: Amsterdam Institute for Advanced Labour Studies, University of Amsterdam.

Walton, R. and McKersie, R. (1965). A behavioural theory of labor negotiations. New York: McGraw-Hill.