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Central Bank Independence and Coordinated Wage Bargaining: Their Interaction in Germany and Europe

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Abstract

This paper explores the fashionable proposition that with a more independent central bank, a country can secure lower levels of inflation without higher unemployment. Hall shows that the operation of the central bank depends on the character of wage bargaining. He illustrates this point with some cross-national data and an analysis of how coordinated wage bargaining is secured in Germany. He concludes by exploring the implications of this analysis for European Monetary Union.

CENTRAL BANK INDEPENDENCE AND COORDINATED WAGE BARGAINING: THEIR INTERACTION IN GERMANY AND EUROPE

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There has recently been a wave of enthusiasm in Western Europe for reforms to make central banks more independent from national governments. Proposals to put monetary policy in the hands of central banks beyond the control of political authorities have received wide support in the European press. The Financial Times concludes that: "The argument for central bank independence...appears overwhelming."[1] The French have already initiated reforms to enhance the independence of the Bank of France, and in 1993 a House of Commons committee began considering greater independence for the Bank of England.[2]

The European Community has taken a similar position. Its plans for monetary union envision a European Central Bank (ECB) whose executive board is to be appointed for eight year terms and forbidden to receive instructions from other EC or national institutions.[3] Although European Monetary Union has been delayed by popular discontent with the Maastricht Treaty and by a recession that has made the requisite financial targets difficult to attain, plans for EMU are still proceeding on the premise that an independent central bank will enhance Europe's economic well-being.[4]

Most of the enthusiasm for independent central banks rests on three pillars: a particular economic diagnosis, a specific model of success, and some supporting econometric evidence.

The relevant economic diagnosis attributes Europe's poor economic performance in recent years to mismanagement by national political authorities.

It is a truism of modern politics that any downturn in the economy sets in motion the search for a culprit and a cure. Everyone's favorite culprit in these cynical times is the political class--not just the prevailing government but all politicians. Now more than ever, they are assumed to lack the good sense or strength of will necessary to pursue effective economic policies.

The cure onto which many have fastened is greater independence for the central bank. Their argument is that politicians may be unable to impose the tight monetary policies that will deter producers from agreeing to inflationary wage settlements because they seek reelection and so fear the higher levels of unemployment that tight monetary policy often entails. By contrast, it is said that a central bank independent of any such concerns could administer the medicine, however distasteful, needed to keep the economy healthy.

The model underpinning these propositions, of course, is that of the Federal Republic of Germany which has had the most independent central bank in Europe and a record of great economic success. Many attribute the low rate of inflation in Germany to the independence of the Bundesbank.[5] Their hope is that, by acquiring an independent central bank of their own, they can duplicate Germany's success.

A growing number of economic analyses now provide further support for this position. Various economic theories have been adduced to explain why independent central banks should be advantageous, and many econometric studies find that nations with more independent central banks have lower rates of inflation than do those whose banks are subject to more political control.[6] The most recent of these studies suggest that, where the central bank is more independent, lower rates of inflation can be secured without any other adverse economic effects.[7]

The purpose of this article is to question this conventional wisdom. I ask a series of questions. Is central bank independence the only variable that might explain low rates of inflation? Can we attribute the success of Germany at securing low levels of inflation without high unemployment entirely to the independence of the Bundesbank? Will reforms that establish a more independent central bank, at the national or European level, actually allow the European nations to secure lower levels of inflation without any other adverse economic consequences? To anticipate only a little, the answers that I will give to all of these questions are negative.

Bringing Comparative Political Economy Back In

The central problem with much of the current debate is that it attributes to the independence of the central bank a set of economic effects that are actually conditioned by a much wider array of institutional variables. Once these variables are brought into the analysis, we find, not that the degree of independence enjoyed by the central bank is irrelevant, but that its impact in any national setting depends on the configuration of other institutions within that setting. As in so many other cases, it is the interaction effects between multiple institutions that analyses focused on a single variable generally miss. In this case, the results have important implications for the desirabilility of establishing a more independent central bank whether in Europe as a whole or in any one nation.

The starting point for my analysis is two decades of work in comparative political economy which tends to suggest that a nation's capacity to secure low rates of inflation at relatively low levels of unemployment depends substantially on the institutional arrangements that underpin wage bargaining.[8] Over time, there has been some debate about what kind of arrangements are most conducive to effective economic performance. Here, I will distill a large and complex literature into two groups.

The issue that both groups address is the problem of avoiding wage bargains that are excessive. By the term 'excessive' I mean wage bargains which are so high as (i) to fuel an inflationary wage-price spiral, (ii) to force large numbers of firms into substantial lay-offs, (iii) to undermine the international competitiveness of national firms or (iv) to inspire devaluation or a deflationary response from the government. Each of these outcomes raises rates of inflation or rates of unemployment or both. Thus, I define economic effectiveness as an outcome characterized by the lowest possible levels of inflation and unemployment.

The first group of analyses to be found in the literature are those that associate economic effectiveness with highly centralized (or encompassing) trade unions and wage bargaining that takes place at a centralized (or economy-wide) level. They argue that in these kind of settings wage bargains are less likely to be excessive for several reasons. First, when wage bargaining takes place between a highly centralized union confederation and employers confederation, the two sides are likely to frame their demands in the light of the consequences that any settlement will have for the whole economy since those consequences will fall on their members. Second, when the union confederation knows that the settlement it reaches will be applied to the whole economy, it does not need to build into its demands an increment (itself inflationary) to protect real wages against the inflation that might ensue from other settlements. Third, when the number of organizations at the bargaining table is small, agreement on the economic predictions relevant to the settlement is easier to achieve. Finally, some argue that the government can more readily facilitate an acceptable settlement in such instances by exchanging commitments on social or economic policy for a wage agreement because such 'political exchanges' are more feasible when there are only one or two other parties to the exchange. Readers will recognize in this formulation some of the core postulates of the 'neo-corporatist' literature.[9]

In recent years, however, a second group of theories have suggested that equally good economic results can be obtained from a wider variety of institutional arrangements, including many that do not feature peak-level bargaining among centralized confederations.[10] They argue that the key to avoiding excessive wage settlements is not the centralization of the bargaining process per se but the degree to which bargaining is coordinated across the economy. They suggest that such coordination can be accomplished in a variety of ways, each dependent on a specific institutional context.

In some cases, wage coordination of this sort can be attained by industry-wide trade unions and employers associations, provided that one or two leading wage settlements are taken as the pattern for all subsequent settlements. Here the presence of relatively concentrated, and often industry-wide, unions is important and it is the union side that does much of the coordination.[11] In other cases, even when the unions are weaker or more fragmented, a similar degree of coordination can be accomplished by employers, provided the latter have formal or informal mechanisms for agreeing on wage norms. Thus, wage bargaining can be coordinated in Japan, where the unions are company-based, because bargaining is concentrated into a single 'spring offensive' and employers can utilize their dense network of business associations to coordinate the negotiations.[12]

Coordinated wage bargaining tends to militate against excessive wage settlements for much the same reasons that centralized bargaining does, and the latter can be considered a special case of coordinated bargaining. Where bargaining is coordinated, those negotiating the lead settlement know what the subsequent wage settlements in the economy are likely to be and so they need not build in an increment for unanticipated inflation flowing from other settlements. Since they know that the settlement they reach is likely to be generalized to the entire economy, they tend to take the broader economic effects of any settlement into account because they can predict those effects and know that they will fall upon their own members. Because coordination gives a leading role to a few bargaining agents, it is also easier to reach agreement on the relevant economic projections. In addition, coordinated wage bargaining systems often give a privileged role to representatives of the export sectors of the economy, who are especially sensitive to the impact any bargain might have on international competitiveness or exchange rates.

In order to see the advantages of coordinated wage bargaining, consider what takes place when bargaining is not coordinated but conducted by many uncoordinated units. This means that each bargaining unit, generally a dyad of employer and union, must reach a settlement in the context of considerable uncertainty about what settlements the other bargaining units in the economy will reach. To begin with, the unions will be tempted to seek an extra 'inflation increment' on top of the real wages they desire in order to protect themselves from the real wage losses they will incur if other settlements are more inflationary than their own or in the hope that their own setlement will outpace the general level of inflation that ensues from other settlements. Because their own bargaining unit may be too small to have much impact on the overall economy and they are uncertain about the effects of other settlements, they are unlikely to let considerations of the broad economic effects that would ensue if all units agreed to such a settlement influence their decision-making. Since they have no reason to expect the government to produce an economic policy in response to their individual settlement, they are unlikely to let the prospect of a deflationary response affect their bargaining.

Two empirical predictions follow from this analysis. First, it should be apparent that, in nations where the unions have at least a moderate amount of power, those nations with uncoordinated wage bargaining are likely to experience higher levels of inflation than nations with coordinated wage bargaining. In the uncoordinated setting, both unions and employers face fewer incentives to avoid wage settlements that might be inflationary. Indeed, some of the incentives they face push for inflationary settlements.

Second, the process of attaining a specific rate of inflation is likely to entail higher levels of unemployment in nations with uncoordinated wage bargaining than it will in nations with coordinated wage bargaining. In the latter, the leading bargainers have the incentives and knowledge to incorporate into their decision-making a judgement, first, about the impact of their wage settlement on unemployment levels in the economy as a whole and, second, about the likely response of the government to the settlement they reach. Thus, they can avoid, in advance, settlements that might tend to raise unemployment directly (by raising unit labor costs) or indirectly (by provoking a deflationary response from the government which will increase unemployment). By contrast, when bargaining is uncoordinated, the bargainers cannot well anticipate such results. Thus, they often conclude settlements inflationary enough to induce lay-offs or a deflationary response from the government. Once unemployment rises, wage settlements are likely to fall in the next round, thereby avoiding an inflationary spiral, but a stable rate of inflation will have been achieved only at the cost of relatively high unemployment.

The empirical implication is that it should be possible for nations with systems of coordinated wage bargaining, whether achieved via centralized negotiations or by other means, to secure levels of inflation similar to those in other nations without coordinated wage bargaining but at a lower cost in terms of unemployment. When institutions for coordinated wage bargaining are present, the relevant signalling among the actors can take place without the need for intervening unemployment. When bargaining is uncoordinated, an increase in unemployment may well be necessary before a decentralized set of bargainers can be persuaded to reduce the level of their settlements.

At a theoretical level, these issues can be understood nicely in collective choice terms. Low rates of inflation at relatively low rates of unemployment is the best outcome for all the actors, but they can secure it only if they can cooperate. In that sense, this is a classic collective action problem. The institutions associated with coordinated wage bargaining provide the individual actors with the information and incentives necessary to lead them to cooperate. In particular, this institutional framework allows them to form credible expectations about the probable actions that others will take in response to their own actions. It reduces the uncertainty about the probable actions of others that inhibits cooperation and leads to sub-optimal outcomes in situations of uncoordinated bargaining.[13] At the heart of coordinated wage bargaining is an elaborate signalling mechanism which may take different forms across nations but which allows each of the relevant actors--employers, unions and government--to form clear and largely congruent expectations about what kind of wage settlements the state of the economy will allow and about what the other relevant actors will do in the wake of a particular wage bargain.

Some Preliminary Data

These points about the impact of wage coordination have been ignored in most discussions about central bank independence. Most studies that attempt to assess the impact of central bank independence on the economy do so without building incorporating the character of wage coordination as a variable in their analyses.[14] When we do so, the results are quite striking.

I report the results of a highly preliminary analysis for ten countries for which the relevant data is available in Table One.[15] The Table displays scores for the independence of the central bank and for the degree to which wage bargaining is coordinated in each nation alongside the average inflation rate of the nation for the 1955-88 period and a 'misery index' that simply sums the average rate of inflation and the average rate of unemployment there in the 1955-88 period. For ease of interpretation, the nations are divided into three groups, each of which reflects roughly the same level of central bank independence.

TABLE ONE: INSTITUTIONAL STRUCTURES AND ECONOMIC PERFORMANCE

	Index of Central Bank Independence*	Index of Coordinated Wage Bargaining#	Average Inflation 1955-88@	Misery Index 1955-88@
U.K.	2	0	6.7	12.0
France	2	1.5	6.1	10.3
Italy	1.75	2	7.3	14.3
Norway	2	4	6.1	8.2
Sweden	2	4	6.1	8.2
* * *				
Netherlands	2.5	3	4.2	9.3
Japan	2.5	5	4.9	6.7
* * *				
U.S.	3.5	0	4.1	10.1
Germany	4	3.5	3.0	6.6
Switzerland	4	4	3.2	3.7

* Higher levels reflect greater central bank independence.
\# Higher levels reflect more coordinated wage bargaining.
@The Misery Index adds average inflation and unemployment, 1955-88.

SOURCES: *Alesina and Summers; #Soskice; @Alesina and Summers, OECD, ILO

It should be immediately apparent that nations with more independent central banks do tend to have lower rates of inflation. It is precisely this finding that has inspired such enthusiasm for central bank independence, and these figures do not contradict it. However, the Table reveals something further. Within each group of nations with central banks of roughly equal independence, those nations with more coordinated systems of wage bargaining perform much better on the misery index. That is to say, nations with coordinated wage bargaining have been able to attain roughly similar rates of inflation at lower levels of unemployment.

Sweden and Norway, for instance, with central banks much like the Bank of England or the Bank of France, have managed to achieve rates of inflation roughly similar to those in Britain or France at roughly half the levels of unemployment of the latter. Among nations with relatively independent central banks, Germany and Switzerland score significantly lower on a misery index than the United States, where wage bargaining is not so well coordinated.

What this suggests is that a system of coordinated wage bargaining clearly reduces the overall economic costs of attaining a given level of inflation. The degree of independence of the central bank seems to influence the level of inflation at which a nation will aim. Nations with more independent central banks aim at lower levels of inflation. But the nature of the wage bargaining system in each nation then affects the cost in terms of unemployment required to attain that level of inflation.

One way to describe this result is to invoke the traditional notion that each nation faces a particular Phillips curve trade-off between inflation and unemployment. We might say that the independence of the central bank affects the point along the Phillips curve which a nation will choose to be at, while the overall shape of the curve, i.e. the level of unemployment associated with any chosen rate of inflation, will be conditioned by that nation's system of wage bargaining.

The German Model Reconsidered

As we have seen, the `German model' figures prominently in current economic debates, and the facet of that model on which most commentators have fastened is the level of independence enjoyed by the Bundesbank. To be sure, the Bundesbank is a prominent feature on the institutional landscape of Germany, in recent years all the more because of the leading role it plays in the European Monetary System. And analyses of its impact are not entirely misplaced. The independence of the Bundesbank has undoubtedly contributed to the capacity of Germany to resist inflationary pressures, as the crossnational data reported above suggests.

However, the independence of the Bundesbank is not the only institutional feature of the German political economy that contributes to the relative success with which West Germany (and now Germany) has contained inflation.[16] Less noticed but equally important has been the institutional framework within which wage bargaining takes place. There is good reason to think that this framework has a salutary impact of its own rates of inflation and that its presence greatly facilitates the capacity of the Bundesbank to influence the inflation rate.[17] By considering the German case, we can learn more about how a system of coordinated wage bargaining works and the requisites for such a system.

The organizational parameters of the German system are quite clear. Its workforce is organized into l7 large unions, often covering entire industries, who also belong to an overarching union confederation, the DGB, (Deutschegewirkschaftsbund).[18] These unions bargain with employer associations, also organized by industry, which represent 80 percent of German employers. Thus, collective bargaining is relatively centralized at the industry level. Moreover, both the unions and the employers associations are strongly positioned vis-a-vis their rank and file members because they control access to a range of resources important to their members, including vocational training schemes and the like. The system is underpinned by a legal framework which regulates many aspects of the bargaining process, specifies that only legally-recognized unions can conclude collective wage agreements, and allows industry agreements to be extended to cover all companies in a sector by agreement between the union, the employers association and the regional governments. At the plant level, the system is underpinned by a system of elected works councils, on which the unions are generally represented and which can negotiate local working conditions and, less formally, local arrangements affecting pay and pay structures.[19]

Equally central to the operation of the system is the less formal arrangement whereby the settlements reached in most industries generally follow the precedent set by the bargain reached in a leading sector each year. For most of the postwar period, the negotiations that lead the others have been conducted between IG Metal, the massive metalworkers union which organizes a range of industries including automobiles, engineering and steel, and the relevant employers federations.[20] A variety of factors converge to give IG Metal this leading role and to ensure that other industries will follow its lead. Many of these factors follow more or less from organizational parameters. IG Metal is the largest and organizationally strongest German union covering the sectors most central to Germany's industrial performance. Thus, the other unions know that they are unlikely to improve on the settlement it can attain and they have become accustomed to following its lead.[21]

Given these basic organizational parameters, why does the German system of wage bargaining generally lead to such effective economic outcomes, defined here as wage settlements that are usually conducive to low levels of inflation reached without resort to high levels of unemployment? There are several reasons for this.

First, the leading bargain that will set the pattern for most subsequent settlements is struck between a union and employers federation which represents such a large segement of the economy that considerations about the overall health of the economy will naturally influence the bargaining positions of the participants. Knowing that the settlement they reach will be generalized to the whole economy, the union can predict the real wage outcomes of its agreement and need not seek an increment (which itself would be inflationary) to guard against unanticipated inflation that might follow from other more inflationary settlements. Similarly, the union knows that any adverse employment effects from an excessive settlement will fall in substantial measure on its own members.

Even more important, since the metalworking industries comprise the principal export sectors of the economy, the two sides will be especially concerned to keep unit labor costs at internationally competitive levels--a factor that would not normally influence a bargain made in the sheltered or public sectors. Since falling international competitiveness can be a prime cause of unemployment in open economies or a stimulus for deflationary government policies, a system that confers leadership on the export sector minimizes the chances that national wage increases will lead to unemployment in such economies.

Third, the presence of works councils capable of restructuring local pay structures, gives individual unions and employers enough flexibility to adapt industry-wide bargains to local conditions to sustain their commitment to the industry-wide bargaining system.[22] The overall legal framework conferring resources and sanctioning authority on unions and employers federations further limits the likelihood of rank and file revolts against these organizations or the bargains they strike.

For all of these reasons, this system of coordinated wage bargaining itself tends to enhance economic outcomes. However, in Germany, another key component of the overall wage determination system is the Bundesbank, and one of the major advantages of coordinated wage bargaining is that it enhances the ability of the Bundesbank to attain low inflation targets at minimum cost in terms of unemployment.

The Bundesbank enters these interactions because it is in a position to set monetary policy in response to a particular level of wage settlements. If it considers this level to be excessively inflationary, it will tighten monetary policy, thereby increasing unemployment and often appreciating the exchange rate. As it result, it behooves the wage negotiators to anticipate the response of the Bundesbank to any settlement they might reach.

The advantage of the German system of wage bargaining is that the key bargainers are positioned in such a way as to render them especially sensitive to signals from the Bundesbank; and the Bundesbank is positioned so as to render its signals especially credible. The German bargainers in IG Metal and the metalworking employers federation are especially likely to heed signals from the Bundesbank, first, because they represent so large a portion of the economy that they are bound to be affected adversely by deflationary policies which reduce aggregate demand and increase unemployment and, second, because they represent an export sector that will suffer particular harm if monetary policy is tightened because the latter tends to appreciate the exchange rate, thereby making German exports more expensive in world markets.

The Bundesbank, for its part, is well positioned to provide credible signals to the negotiators precisely because it is largely independent of government control. It is here that the independence of the central bank plays a role. When monetary policy is under the control of an elected government, wage negotiators may be uncertain about whether the government will follow through on threats to deflate the economy in the wake of inflationary wage settlements because they know that it will be influenced by a desire to remain popular enough to secure reelection. When the central bank is independent, by contrast, no electoral constraint inhibits its action. Therefore, pronouncements by the Bundesbank about the kind of monetary stance a projected set of wage settlements might engender are especially credible. Uncertainty about whether the monetary authorities will follow through on their threats is much reduced.

One consequence of this is that monetary policy in Germany has tended to be somewhat more deflationary than in many other nations where monetary policy is under the control of elected authorities. Likewise, the Bundesbank imparts a deflationary bias to wage settlements. Another consequence, however, is that the Bundesbank does not actually need to induce unemployment, via deflation, in order to persuade wage bargainers to reach noninflationary settlements. The signals it sends in advance of a national wage agreement about the likely course of policy are often adequate to influence the nature of that settlement. By contrast, in nations without coordinated wage bargaining, even independent central banks may have to apply draconian policies before the relevant economic actors take notice.

It is important to note that, while the essence of this arrangement consists in an effective signalling system, the operation of the system does not depend on communication alone. It also depends on the relevant actors being placed within an institutional context that tends to render them especially responsive to the signals that are being sent. The key bargainers are placed so as to be sensitive to signals about the course of policy and the overall health of the economy; and the Bundesbank is placed so as to render its signals especially credible.

Similarly, the signals sent in the course of negotiations between unions and employers must also be credible if the system is to work efficiently; and it is worth noting that the credibility of their signals depends not just on what they say but on the power they have to back up their threats or promises. Thus, the system depends not just on communication but on a certain balance of power. Employers and trade unions heed what the other says because they know what the other can and probably will do. Each wields sufficient power that the other must take its views into account.

This balance of power is underpinned, in part, by the organizational framework within which bargaining takes place. The unions have a substantial membership base, large strike funds and the capacity to mount serious strikes as well as substantial resources with which to sanction their members. Even at the local level, the capacity of the unions to back up its representatives on the works councils is an important pillar underpinning the local authority of the latter.[23] The employers, for their part, are well-organized and can wield effective sanctions against firms tempted to depart from collective agreements. Thus, both sides can be reasonably certain that an agreed bargain will be observed.

Equally important to the maintenance of this system and the balance of power that underlies it, however, have been the efforts of the relevant participants over the years to test the limits of their power and to punish the other side for deviations from the norms that guide the overall operation of the system. If the actual bargaining process resembles a game and could be modelled as such, we can think of the historical process whereby the norms governing that game are established and maintained as a 'meta-game' more extended in time but equally important to the outcomes.[24]

Although there is not space here to provide a full account of the historical episodes through which the norms of the German bargaining game and the balance of power that underpins it have been established, we can take notice of this meta-game.[25] In general, the annual wage round has been marked by a major strike or lockout about once every five years. In some cases, these reflect an effort by the relevant parties to test the real bargaining power or resolve of their counterparts or to secure more advantage than usual in the wake of a past round that proved unexpectedly disadvantageous. In other cases, this conflict reflects an effort on the part of one side to punish the other side for apparently misleading it in an earlier period or for trying to change the rules of the game, for instance, by reneging on a prior agreement. In this way, the parties to these agreements periodically reinforce the underlying norms that make credible agreements possible, reassure their constituent members that they are bargaining hard and seriously, and remind each other of the power at their disposal.

It is notable that, however conflictual the individual episodes in this metagame, its outcomes are usually such as to reconfirm the basic parameters of the traditional bargaining game described above. In this respect, depite surface conflict, the system has had an underlying stability that is remarkable.

Moreover, the German wage bargaining system displays a resilience that is especially useful in such spheres. By 'resilience' I mean the capacity of such a system to survive exogenous shocks that are either generated by the participants or unanticipated by them. Any system of wage bargaining is bound to encounter such shocks because the results of any wage settlement depend on economic developments that are often very hard to predict. The economic world is fraught with uncertainty. As a result, despite the best guesses of the participants, the ultimate outcomes from any wage settlement may turn out to be disadvantageous to one side because of unanticipated economic developments. Such events put great strain on these systems. They can induce rank and file revolts that undermine the authority of the bargaining agents. They can inspire one side to punish the other for advantages the former gained as a result of unexpected economic developments, thereby disrupting the capacity of the system to generate equilibrium outcomes.

That the German system has survived many such strains is testimony to its underlying resilience, which in turn is based on a variety of factors. Chief among these is the longstanding balance of power among the participants. Even if one side gains a temporary advantage from exogenous economic developments, it can rarely translate that into a long-term bargaining advantage. As a result, each side knows that it must return to a longstanding pattern of interaction and is often willing to make some concessions in the wake of an unexpected outcome in order to restore the effectiveness of the bargaining system as a whole. Central as well is the commitment of the public authorities to the maintenance of a system that has worked so well. Otherwise, one of the parties might use the extensive powers of the state to alter the system on its behalf. Such attempts have been made, but they have usually been stymied, largely because the German political system provides niches through which all of the participants can influence its decisions.[26]

Finally, we can make some observations about the overall character of the German system of coordinated wage bargaining, noting both what it is not and what it is. To begin with, it is not non-conflictual. Each year there is conflict at least at the rhetorical level between employers, unionists and the Bundesbank; and periodically, there are bitter strikes and lockouts as each side tests the limits of the system and reestablishes its credibility.

Second, the German system is not really neo-corporatist at least to the degree the term implies that the government plays an active role in securing an annual wage bargain.[27] The Bundesbank seeks to influence each wage settlement by offering an opinion about the desirable level for such a settlement and by indicating the policies it will pursue in the wake of a settlement. But, in contrast to the 'social contracts' established in many other nations, neither the government nor the bank really enter into the kind of 'political exchange' that entails providing certain social or economic policies in exchange for a specific settlement.

Even the much-vaunted arrangements for Konzertierte Aktion between 1967 and 1977, whereby the government sponsored consultations with employers and unionists, did not entail such an explicit exchange. Indeed, some of the resilience of the German system probably derives from the fact that it does not depend on such exchanges to reach agreements since, in the economic circumstances of the 1980s and 1990s, it has become increasingly difficult for national governments to promise full employment or further social benefits in return for a particular agreement on wages.[28]

Thus, the German system of coordinated wage bargaining nicely illustrates the way in which a particular set of institutional arrangements can induce the participants to cooperate with each other so as to attain outcomes that are superior to those they would choose in the absence of such arrangements. It is worth noting that these structures simultaneously condition several different kinds of interactions: those between unions and employers, those between unions (or employers) and the public authorities (notably the Bundesbank), those between individual unions or employer associations and other such unions or associations, and those between the leaders of individual unions or employer associations and their members. The system as a whole is robust precisely because these institutional arrangements so structure the choices available to the individual participants at each level of interaction that self-interest alone will lead them to make the kind of choices that result in an equilibrium that is Pareto-superior to many other alternatives. The system is not fail-safe and it may well not be eternal, but it has been highly effective.

Wider Implications

This analysis has important implications for both the European Community and other nations contemplating more independent central banks. It suggests that nations seeking better economic performance should not expect to attain it simply by making their central bank more independent. Where independent central banks work best, they have been combined with specific kinds of labor market arrangements that allow for coordinated wage bargaining. A more independent central bank may be able to tighten monetary policy more forcefully than an elected government so as to attain a lower inflation target but, in the absence of coordinated wage bargaining, the cost of reaching this target may be much higher unemployment than many expect.

This may not be welcome news for many governments. Although it may be relatively easy to legislate the institutional reforms that grant the central bank more independence, it can be very difficult to secure the kind of institutional conditions that underpin coordinated wage bargaining. The latter depend heavily on the organization of key actors in the broader political economy, such as employers and trade unions, whose shape has been affected by long historical experience and may not be immediately amenable to political engineering.[29]

This analysis also contains a cautionary tale for the European Community. With approval of the Maastricht agreement, the Community has formalized its plans to build monetary union around a European Central Bank whose general structure and level of independence are modelled on those of the Bundesbank. However, the Community has shown little interest in acquiring the kind of labor market institutions that have also been crucial to the control of inflation in Germany, as the meager progress made on the Social Charter indicates.[30]

Indeed, it is questionable whether the Community can ever achieve, at a continental level, the kind of coordinated wage bargaining that facilitates the operation of an independent central bank. Neither employers nor trade unions have had much success in organizing at the European level. In some sectors, employers have succeeded in establishing a presence in Brussels but its purpose has mainly been to lobby Community institutions. It is a far different and more difficult matter for employers to coordinate wage bargaining across national boundaries. The few transnational negotiations that have taken place have generally been concentrated on the enterprise level. The trade unions have been even less successful at establishing a strong European presence and, given the wide disparities in the way in which trade unions are organized among the different European nations, it is hard to imagine how they could coordinate their bargaining across the continent.[31]

As a result, even with a European Central Bank that is relatively independent from political pressure, the control of inflation in a European monetary union may prove more difficult and more costly, in terms of unemployment or growth foregone, than many analysts now imagine. If it already takes high levels of unemployment before the monetary authorities of Britain or Italy can persuade their national trade union movements to moderate their wage demands, will a central bank trying to contain inflation on the entire continent not have to apply even more draconian policies to convince local wage bargainers to accept lower settlements?

Moreover, once control over monetary policy moves to a European Central Bank concerned about inflation across the continent, it is likely that the smooth signalling mechanisms currently designed to secure low rates of inflation and unemployment in many nations via coordinated wage bargaining will be disrupted. As we have seen, the present German system is based on a mutual responsiveness between the Bundesbank and the German trade unions which may well not be duplicated when the new European central bank must also respond to trade unions all over the continent.

For all of these reasons, simply to establish a European Central Bank on the model of the German Bundesbank may not produce the economic results that many who are inspired by the German example now envision. Moreover, the German system itself is experiencing severe strain as a result of unification. Two sources of strain deserve particular emphasis. In order to maintain the integrity of the wage bargaining system, the West German trade unions insisted on an agreement extending it to the east of Germany and on a rapid increase of wages in the east towards parity with the west. Since productivity is lower in the east, however, this strategy has been costly in terms of unemployment, and the unions have come under heavy pressure to revise the agreement retrospectively. This pressure has already provoked a bitter industrial conflict during the spring of 1993, in which the unions fought strongly to defend the principle that standing agreements should not be abrogated; and there are signs that the task of coordinating wage bargaining across a more-developed west and less-developed east will continue to cause difficulties.

Unification has also imposed considerable strain on relations between the Bundesbank and the federal government. It is important to recognize that the Bundesbank takes a monetary stance not only in response to wage settlements but also in response to the fiscal stance of the government. When it considers the latter to be too expansionary, it frequently responds by tightening monetary policy. In general, the best results are produced when the fiscal and monetary stances are congruent; and to have policy working at cross-purposes generally produces a sub-optimal outcome. Mindful of this, the German authorities try to coordinate their fiscal and monetary policies, but there have been occasions when the Bundesbank has felt it necessary to tighten monetary policy dramatically both to offset the potentially inflationary effects of the government's fiscal policy and to reassert the credibility of the commitments it will make in subsequent years to enforce an austere policy stance.[32] When conflict of this sort breaks out between the government and the Bundesbank, it can affect economic performance and interfere with the overall functioning of the system for wage coordination.

Unification has generated just such a conflict between the Bundesbank and the government. In order to finance the social and economic costs of unification, the German government mounted an expansionary fiscal policy in the years after 1989 and, in return, the Bundesbank retaliated with a relatively tight monetary policy. For some years, the Bundesbank and the government have been engaged in an elaborate game of 'chicken', as the Bank tightened monetary policy to offset and discourage the loose fiscal policies of a government intent on absorbing the costs of unification.[33] The consequences for the German economy have been far from optimal.

In many respects, however, the European monetary union at which the EC is still aiming will involve a process analogous to that of German unification. As in the case of German unification, high-wage and highly-skilled economies will be joined to less developed regions of the Community under a single monetary authority. The temptations facing many of the national governments in the new union to pursue expansive fiscal policies will be substantial, especially since some of the adverse monetary effects of such an expansion will be borne by the Community as a whole. The arrangements for coordinating fiscal policy specified in the Maastricht Treaty are vague, and at least some of the signatories have supported the Treaty specifically in the hope that they will have more room for fiscal expansion under a European central bank than they now do in a European Monetary System dominated by the Bundesbank.

As a result, it is likely that fiscal and monetary policy will be even less well coordinated in the new European union than they have been in Germany. The immediate consequences for growth and employment are likely to be unfortunate; and it is possible that, in the face of divergent national fiscal policies, a European central bank will have to pursue monetary policies even more draconian than those of the Bundesbank today to attain the low rates of inflation it was established to secure.

The moral of this story is that, while considering the virtues of an independent central bank at the national or European level, we should not forget the value of economic coordination more generally, either in the sphere of wage bargaining or between those superintending fiscal and monetary policy. An independent central bank trying to impose its views on a reluctant government or a recalcitrant workforce is no more than a second-best solution to problems that need to be tackled with a wider range of institutional arrangements. Those who seek a more independent central bank should proceed with an awareness that the institutional structures underpinning wage bargaining and the coordination of fiscal and monetary policy can have an important impact on the level of unemployment that may follow from the efforts of an independent central bank to reduce inflation.

NOTES

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1 Financial Times (London) 12 November 1992, p. 20.

2 Financial Times (London) 6 January 1993, p. 2 and 14 September 1993, p. 3.

3 Cf. Michele Fratianni, Jurgen von Hagen and Christopher Waller, "The Maastricht Way to EMU" Princeton Essays in International Finance, No. 187 (June 1992) and Barry Eichengreen, "One Money for Europe? Lessons for the U.S. Currency and Customs Union, Economic Policy, 10 (April 1990), pp. 117-87.

4 Indeed, some European nations are enhancing the independence of their central bank specifically so as to meet the requirements of EMU.

5 cf. Fratianni et al., op. cit.

6 For representative theories see: Kenneth Rogoff, "The Optimal Degree of Commitment to an Intermediate Monetary Target," Quarterly Journal of Economics 110 (November 1985), pp. 1169-90 and Suzanne Lohmann, "Optimal Commitment in Monetary Policy: Credibility versus Flexibility," American Economic Review 82 (March 1992).

7 Among the best of these is the article by Alberto Alesina and Lawrence Summers, "Central Bank Independence and Macroeconomic Performance," Journal of Money, Credit and Banking (1993) to which I am especially indebted for inspiring this particular article. See also Vittorio Brilli, Donato Masciandaro and Guido Tabellini, "Political and Monetary Institutions and Public Finance Policies in the Industrial Countries," Economic Policy (1991).

8 For representative analyses, see: David Cameron, " Social Democracy, Corporatism, Labor Quiescence, and the Representation of Economic Interest in Advanced Capitalist Society" in John Goldthorpe, ed., Order and Conflict in Contemporary Capitalism (New York: Oxford University Press, 1984, pp. 143-78; Lars Calmfors and John Driffill, "Centralization of Wage Bargaining," Economic Policy (1988) and Peter Lange and Geoffrey Garrett, "The Politics of Growth", Journal of Politics 47 (1985), pp. 792-827.

9 For overviews of this large literature see: Gerhard Lehmbruch and Philippe Schmitter, eds., Patterns of Corporatist Policy-Making (Beverly Hills: Sage, 1982 and John Goldthorpe, ed., Order and Conflict in Contemporary Capitalism (New York: Oxford University Press, 1984.

10 See especially: David Soskice, "Wage Determination: The Changing Role

of Institutions in Advanced Industrialized Countries," Oxford Review of Economic Policy 6, 4 (1990), pp. 36-61.

11cf. Miriam Golden, "The Dynamics of Trade Unionism and National Economic Performance," American Political Science Review 87, 2 (June 1993), pp. 439-454, who provides evidence suggesting that the concentration of the union movement is more important than its centralization to such outcomes.

12Soskice, op. cit. provides the classic statement of this position and more general evidence for the crucial, if neglected, role of employers in this process is provided by Peter Swenson, Fair Shares (Ithaca: Cornell University Press, 1989) and James Fulcher, Labour Movements, Employers and the State (Oxford: Clarendon Press, 1991).

13Cf. Russell Hardin, Collective Action (Baltimore: Johns Hopkins University Press, 1982); David Kreps, Game Theory and Economic Modelling (Oxford: Clarendon Press, 1990); and Kenneth Shepsle, "Studying Institutions: Some Lessons from the Rational Choice Approach," Journal of Theoretical Politics 1, 2 (1989), pp. 131-47.

14One notable exception is Thomas Havrilesky and James Granato, "Determinants of Inflationary Performance: Corporatist Structures vs. Central Bank Autonomy," Public Choice 76 (1993), pp. 249-61, although they reach different conclusions in part because they model corporatist structures rather than wage coordination.

15The data are drawn from Alesina and Summers, op. cit. who provide a carefully derived index for central bank independence and Soskice, op. cit. who provides a similar index for coordinated wage bargaining, supplemented with figures for unemployment supplied by the OECD and International Labor Office. The number of cases is restricted primarily because Soskice reports measures for only ten countries.

16Although the focus of this analysis is on the organization of the political economy, other kinds of factors may play a role here, including the economic forces contributing to the strong growth performance of the economy since these reduce the distributive pressures that can breed inflation and a more general cultural aversion to inflation born of the experience of hyperinflation in the 1920s. I am inclined to see these as more minor contributors to the outcome, but others accord them a more prominent role. For general arguments about such points, see; Fred Hirsch and John Goldthorpe, eds., The Political Economy of Inflation (London: Martin Robertson, 1978) and Leon Lindberg and Charles Maier, eds., The Politics of Inflation and Economic Stagnation (Washington: Brookings, 1985).

17For three analyses that explore the relevance of this framework more fully than I can here, see Soskice, op. cit., Fritz Scharpf, Crisis and Choice in European Social Democracy (Ithaca: Cornell University Press, 1991), Wolfgang Streeck, Social Institutions and Economic Performance (Beverly Hills: Sage, 1992) and Wolfgang Streeck, "Pay Restraint Without Incomes Policy: Constitutionalized Monetarism and Industrial Unionism in Germany" (University of Wisconsin, mimeo). I am grateful to Wolfgang Streeck for allowing me to read his insightful analysis. See also: Peter A. Hall, Governing the Economy (New York: Oxford University Press, 1986), ch. 9 for an early formulation of these arguments.

18Two smaller union confederatons, the DAG and DBB, are not in a position to influence the overall outcomes because the former is very small and the latter represents civil servants whose pay is set by legislation.

19On the importance of works councils in the overall system, see Kathleen Thelen, "Union Structure and Strategic Choice: The Politics of Flexibility in the German Metalworking Industries" in Miriam Golden and Jonas Pontusson, eds., Union Politics in Comparative Perspective (Ithaca: Cornell University Press, 1992). On the German unions more generally, see Andrei S. Markovits, The Politics of the West German Trade Unions (New York: Cambridge University Press, 1986).

20The notable exceptions occurred in the 1970s when, OTV, the public sector union, took the lead in the negotiating round with less-than-ideal results.

21Streeck, op.cit. covers this issue in much greater detail and his analysis has influenced mine.

22On this point see Streeck, op. cit.

23See Kathleen Thelen, "Union Structure and Strategic Choice: The Politics of Flexibility in the German Metalworking Industries" in Miriam Golden and Jonas Pontusson, eds., Bargaining for Change (Ithaca: Cornell University Press, 1992).

24The German system of wage bargaining provides fruitful terran for game theorists. Much of it could be represented as a series of interlocking games. For one very insightful effort to model some of its aspects, see Fritz Scharpf, "Game Theoretical Interpretations of Inflation and Unemployment in Western Europe," Journal of Public Policy 7, 1 (1988), pp. 227-57. See also: George Tsebelis, Nested Games (Berkeley: University of California Press, 1990).

25For more details, see: Roland Sturm, "The Role of the Bundesbank in German Politics," West European Politics (April 1989), pp. 1-11; David Marsh, The Bundesbank (London: Mandarin, 1992), ch. 7; and Norbert Kloten et al., "West Germany's Stabilization Performance" in Leon Lindberg and Charles Maier, eds., The Politics of Inflation and Economic Stagnation (Washington: Brookings, 1985) pp. 353-402.

26See Peter Katzenstein, Politics and Policy in West Germany (Philadelphia: Temple University Press, 1987).

27This are points well made in Streeck, "Pay Restraint Without Incomes Policy".

28cf. Scharpf, Crisis and Choice in European Social Democracy.

29For a discussion of the difficulties the French have faced in this regard see: Jonah Levy,

30Cf. Peter Lange, "Maastricht and the Social Protocol: Why Did They Do It?," Politics and Society 21, 1 (March 1993), pp. 5-36; Stephan Leibfried and Paul Pierson, "Prospects for Social Europe," Politics and Society 20, 3 (September 1992), pp. 333-56 and Wolfgang Streeck, "The Social Dimension of the European Economy". A Discussion Paper prepared for the 1989 Meeting of the Andrew Shonfield Association, London.

31See Wolfgang Streeck and Philippe Schmitter, "From National Corporatism to Transnational Pluralism, Politics and Society (June 1991). pp. 133-64 and Michael George, "Euro-Corporatism After 1992". Paper presented to the Annual Meeting of the American Political Science Association, Chicago, September 1992.

32Fritz Scharpf explores some of the consequences of this dynamic in "Economic and Institutional Constraints of Full Employment Strategies: Sweden, Austria and West Germany, 1973-1982" in John Goldthorpe, ed., Order and Conflict in Contemporary Capitalism (New York: Oxford University Press, 1984), pp. 257-90. See also the accounts in John Goodman, Monetary Sovereignty (Ithaca: Cornell University Press, 1992) and Michael Kreile, "West Germany: The Dynamics of Expansion" in Peter Katzenstein, ed., Between Power and Plenty (Madison: University of Wisconsin Press, 1978), pp. 191-224.

33For more general observations about such games, see Iain McLean, Public Choice (Oxford: Basil Blackwell, 1987).

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