The Changing Political Economy of Inflation

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ABSTRACT

A type of conventional wisdom has developed among many scholars that industrialized countries with independent central banks produce lower relative inflation rates than countries that do not have these institutions. We argue that the relative importance of central bank independence for fighting inflation changed fundamentally from the 1970s to the 1980s as a result of experiences in the advanced industrialized democracies, which led both Right and Left governments to move toward more neo-liberal macroeconomic policies. As governments made price stability more of a priority, the anti-inflationary effects of independent central banks would become much less pronounced. This hypothesis is tested and confirmed in the study in a multi-variate regression analysis using data from eighteen industrialized democracies.

Inflation has been one of the most important economic problems political systems have faced throughout history. Soaring price increases have wiped out the value of nations' currencies, crippled their economies, and caused economic as well as political chaos. Weimar Germany is only one of the most salient examples of what kinds of destabilizing effects run-away inflation can have in a country. One need not focus on extreme examples of the political consequences of inflation to realize the political importance of rising prices, however. The economy is of such overriding political concern to citizens and politicians alike that virtually all advanced industrialized democracies have developed political institutions that are designed to help governments manage the economy and avoid the consequences that can result from inferior economic performance. As one consequence of such institution-building, citizens in industrialized democracies assume that governments are responsible for the nation's economic performance (Alt and Crystal 1983; Kesselman et al. 1992), and it is generally acknowledged that

democratic governments are more likely to fall when economic performance is less than satisfactory (Norpoth, Lewis-Beck, and Lafay 1991).

In the second half of the twentieth century, inflation has been a major source of economic and political turmoil. In particular during the oil crises of the 1970s and early 1980s, some countries saw their economies devastated by inflation although some escaped serious economic harm. However, much to the delight of politicians, the trajectory of inflation has changed drastically since the early 1980s. The average inflation rate dropped precipitously throughout the advanced industrialized world. It is undeniable that the rate of inflation has dropped and stayed low from the beginning of the 1980s until the present across every industrialized democracy. On the surface, this appears to suggest that the political economy of inflation has changed for almost all industrialized democracies.

Although there is a clear general downward trend in inflation for all industrialized democracies since the early 1980s, the rate at which inflation has decreased in the industrialized democracies has varied greatly. Some countries have seen very precipitous declines in their inflation rates, while others have seen only small decreases in inflation. This cross-national variation in inflation trajectories among advanced industrialized states has been a puzzle much explored by students of comparative political economy.

Scholars studying the differences in inflation across OECD countries have focused on three factors to explain cross-national variation in inflation rates; the status of the central bank, the institutions of industrial relations, and partisan nature of governments. A very common argument is that if a country has an independent central bank, that country will have a rate of inflation lower than a country that has a government-controlled central bank (Alesina 1988; Bade and Parkin 1980; Cukierman 1992; Cukierman, Webb, and Neyapti 1992; Franzese 1999; Rogoff 1985). Likewise, many scholars have argued that corporatist institutions of industrial relations produce lower relative inflation rates as one of their several economic benefits (Alvarez, Garrett, and Lange 1991; Calmfors and Driffill 1988; Crepaz 1992, 1995; Garrett 1998; Schmidt 1982a, 1985; Wilensky and Turner 1987). Also, scholars have argued that the partisan nature of the government in power affects the inflation that the country is likely to have. Right governments are more concerned with price stability, whereas Left governments are primarily concerned with economic growth and relegate price stability to a secondary priority (Whiteley 1983; Suzuki 1993). These three arguments have developed into a sort of conventional wisdom as to the sources of inflation in industrialized democracies.

This study challenges the conventional wisdom concerning the relationship between central bank independence and inflation. It posits that previous studies of the institutional sources of inflation have been biased by examining the 1970s and the 1980s as one continuous period. We argue that the relative importance of central bank independence to fighting inflation changed fundamentally from the 1970s to the 1980s as a result of the experiences of the 1970s in the advanced industrialized democracies. The experiences of the 1970s led to the adoption of neo-liberal policies. The adoption of neo-liberal economic policies has lessened the importance of central bank independence for fighting inflation. Central bank independence only matters to fighting inflation if the government has a desire to inflate the economy to stimulate economic growth. When Keynesianism was largely abandoned in the 1980s by both Right and Left governments in the industrialized world, albeit to different degrees, this made the anti-inflationary effects of independent central banks much less pronounced, as governments made price stability a top priority. On the other hand, we would argue that corporatist institutions of industrial relations have not lost their anti-inflationary effects because the centralized wage bargaining process inherent in such institutions would not change due to more neoliberal policies.

This paper seeks to develop this argument and then test it empirically. Thus the paper is meant to help us understand the changing nature of the relationship between political-economic institutions and inflation. Understanding this dynamic is important given the trend toward central bank independence and the persistence of corporatism in several OECD states.

The next section reviews the records of inflation of the countries included in the study. Subsequently, we survey the prevailing thinking about the effects of political-economic factors on inflation. We then develop a set of alternative hypotheses meant to explain the crossnational variations in inflation rates in the 1970s and 1980s, which are tested in a multivariate regression analysis. The regression model uses political and economic data from eighteen industrialized countries from 1971 to 1992. After discussing the results, a concluding section concentrates on the ramifications of our findings for the politics and economics of advanced industrial societies facing an uncertain economic future.

Inflation in Advanced Industrial Democracies

The record of economic performance across advanced industrial states – measured in inflation rates – has been quite mixed since the

early 1960s. Increases in consumer prices varied considerably, both across time and countries. Table 1 shows average inflation rates over the 1961–1992 period as a whole and by decade (61–70, 71–80, 81–92).

Overall, Germany was consistently the best performer, achieving an average inflation rate of 3.5 percent. Austria, Switzerland, the Netherlands, and Japan were not far behind in the 4.0 to 4.6 percent range. The highest average inflation rates were recorded in Italy (9.0 percent), New Zealand (8.5 percent), and Ireland (8.3 percent). When we break the data down to the three time periods, we see that the 1970s were the decade of economic crisis. Inflation increased considerably relative to the 1960s in virtually every western democracy. While it declined again during the 1980s in all countries investigated here, a comparison of average rates of inflation from 1981 to 1992 shows a great deal of variation among the 18 industrialized democracies.

Why does a country like Japan have moderate inflation, whereas Ireland has seen consistently high increases in consumer prices? And what makes Germany such a low-inflation country? Moreover, why did inflation decrease more in some countries than in others? That is, what accounts for the differences across countries more generally? Furthermore, are the factors contributing to different levels of inflation during one period equally important during another? These are the questions the current analysis focuses on.

Political-Economic Institutions and Inflation

Scholars have focused on what effect these sets of institutions have actually had on inflation across countries. Specifically, the economic effect of central banks has been the focus of considerable scholarly attention (see, e.g., Alesina 1988; Bade and Parkin 1980; Cukierman 1992; Cukierman, Webb, and Neyapti 1992; Rogoff 1985). Research on central bank independence has found that industrialized countries with independent central banks have lower rates of inflation than those with government-controlled central banks. In an exceptionally comprehensive study of central bank independence, Cukierman, Webb, and Neyapti (1992) find that legal independence is a crucial determinant of inflation in developed countries.1 This argument has been challenged, however, by Posen (1993), who argues that central bank independence is not in fact what produces lower inflation, but the financial sector's opposition to inflation. Without financial sector opposition to inflation, Posen posits, legal central bank independence will not produce lower relative inflation rates.

Why is central bank independence so important for fighting inflation?

Table 1: Inflation Rates, Central Bank Independence, and Corporatism in 18 OECD Countries, 1961-1992 (in %)

Country	Inflation			Average	Central Bank Independence				
	61-70	71–80	81–92	61-92	1960s	1970s	1980s	Average	Corporatism
Australia	2.5	10.5	7.0	6.7	0.36	0.36	0.37	0.37	-1.025
Austria	3.6	6.3	3.6	4.4	0.65	0.61	0.61	0.61	1.600
Belgium	3.1	7.4	4.2	4.9	0.15	0.17	0.17	0.17	0.258
Canada	2.7	8.1	5.5	5.4	0.45	0.45	0.45	0.45	-1.335
Denmark	6.0	9.9	5.2	6.9	0.50	0.50	0.50	0.50	0.518
Finland	5.0	11.3	6.2	7.4	0.28	0.28	0.28	0.28	0.427
France	4.0	9.7	5.7	6.4	0.36	0.24	0.24	0.24	-0.725
Germany	2.7	5.1	2.9	$3.\overline{5}$	0.69	0.69	0.69	0.69	0.480
Ireland	4.8	13.8	6.9	8.3	0.44	0.44	0.44	0.44	-0.528
Italy	4.0	13.9	9.1	9.0	0.25	0.25	0.25	0.25	-8.851
Japan	2.2	9.1	2.1	4.4	0.18	0.18	0.18	0.17	0.053
Netherlands	4.2	7.3	2.7	$\hat{4}.\hat{6}$	0.42	0.42	0.42	0.42	1.006
New Zealand	3.8	12.6	9.1	$\hat{8}{5}$	0.24	0.24	0.24	0.24	-1.106
Norway	4.5	8.4	6.8	6.6	0.15	0.17	0.17	0.17	1.531
Sweden	4.0	9.3	7.3	6.9	0.09	0.09	0.23	0.29	1.396
Switzerland	3.3	5.0	3.7	4.0	0.53	0.53	0.64	0.64	0.505
United Kingdom	4.0	13.8	6.2	7.9	0.43	0.27	0.27	0.27	-0.862
United States	2.8	7.9	4.5	5.0	0.48	0.48	0.48	0.48	-1.341

Source: Inflation data comes from OECD, Main Economic Indicators. Legal central bank independence scores come from Cukierman, Webb, and Neyapti (1992). The corporatism scores come from Crepaz (1992).

Rogoff (1985) argues that independent central banks are an important means to fighting inflation because they help solve the "time inconsistency problem." The time inconsistency problem refers to governments having an incentive to stimulate the economy during election time, in order to prompt growth and lower unemployment, even if the government has publicly committed itself to fighting inflation. Citizens know that governments have this incentive and this leads citizens to develop expectations of inflation that, in turn, produce higher inflation. By handing monetary policy authority over to an independent central bank, a government is making a credible commitment to fighting inflation by making it difficult for itself to engage in electorally-motivated expansionary policies. By tying its hands through ceding monetary policy authority, a government reduces public expectations of inflation, thus reducing inflationary pressures in the economy and helping the government in the long-run by producing good economic performance.

Independent central banks have an advantage over government-controlled central banks in fighting inflation because decision-makers in independent central banks are not controlled by politicians whose primary goal is to be re-elected. Central bankers, because of their background in finance and the socialization that resulted from that experience as well as public expectations that they will fight inflation, have a preference for low inflation (Franzese 1999). Thus the monetary policy of an independent central bank is not geared to stimulate the economy at election time.

Several scholars have argued that countries with corporatist industrial relations also have lower rates of inflation (Alvarez, Garrett, and Lange 1991; Calmfors and Driffill 1988; Crepaz 1992, 1996; Garrett 1998; Schmidt 1982a, 1985; Wilensky and Turner 1987). Katzenstein (1984, 1985) and Crepaz (1992, 1995), for example, have argued that corporatist institutions have played a critical role in the relative economic success of small European states during periods of economic crisis. They contend that the concentration of interests into large peak associations enables economic actors to react flexibly during hard economic times. This collectivization of interests into large organizations leads to greater cooperation between industry and labor as well as between those groups and the state. The social partnership that develops means compensating the losers from the market, while labor agrees to moderate its demands for higher wages. This keeps wage inflation - an important factor in general price increases in an economy – down. Also, this cooperation tempers policy battles and should facilitate more efficient economic policies. According to this line of research, we would expect countries with a greater degree of corporatism to perform better – that is, display lower levels of inflation.

Party Politics and Inflation

Another possible source of the variations in post-oil crises inflation rates can be found in what could be referred to broadly as partisan politics. The partisanship of the government could be a very important factor in shaping inflation because of the preferences of the constituents that governments must appeal to in order to win elections. Several scholars have argued that the partisanship of the government does matter to the type of macro-economic policies chosen (Hibbs 1977; Franzese 1999; Suzuki 1993). Whiteley (1983) has shown that left governments are indeed better at promoting economic growth than right governments. Roubini and Sachs (1989) have demonstrated that government partisanship does matter to the nature of government deficits. They find that right governments produce generally smaller deficits than left governments do (for a constrasting view, see Schmidt 1982, 1985).2 Left governments are more prone to try to promote economic growth and fight unemployment, whereas Right governments gear their macro-economic policies toward fighting inflation. The logic behind this line of argument is that Left governments would try to stimulate growth in order to provide employment opportunities to workers, their primary constituency. Right governments want to control inflation to protect the assets of the wealthy and the middle class, their target constituency. Both Franzese (1999) and Suzuki (1993) have shown empirically that Left governments generate higher rates of inflation than Right governments among OECD countries.³

Finally, some scholars have examined this interdependence of politics – that is, government ideology – and type of interest mediation (Garrett and Lange 1985, 1987, 1989; Alvarez, Garrett, and Lange 1991; Garrett 1998; Hicks 1988; Hicks and Swank 1984; Hicks and Patterson 1989, 1994; Jackman 1987). This strand of research was based on the notion that Left parties in government can achieve favorable economic outcomes only when the degree of corporatism is high. Conversely, good economic performance can be achieved by governments of the right in the absence of strong corporatism arrangements.

We must note that the Garrett and Lange argument about the combination of corporatism and Left government is concerned primarily with these variable effects on growth and unemployment. They argue that a combination of a Left government and encompassing labor organizations should reduce union militancy. We conclude that a reduction of union militancy should produce moderated wage demands and keep inflation rates down. Thus, an interaction of Left government ideology and corporatism would be expected to yield lower levels of inflation.

The 1980s and the Changing Macroeconomic Policy Paradigm in OECD Countries

The various studies mentioned above all have provided important insights into the political factors that drive inflation. They have argued that the degree of central bank independence, the nature of industrial relations institutions, the partisanship of the government are all factors that we can point to as potentially significant factors that can account for the cross-national variations in the rate of inflation. An important assumption of each of these studies that seldom has been spelled out explicitly is that the aforementioned factors will have had the same, or at least similar, effects over several decades – that is, at different points in time.

But the effects of institutions may change because of changes in the preferences of the actors who operate in the institutional context (Knight 1992; North 1990). We argue that central bank independence only serves as a significant dampener of inflation if the government wants to use macroeconomic policy to stimulate the economy at the expense of price stability. If the government makes price stability a top priority, central bank independence is superfluous. We posit that governments in industrialized countries had a preference for Keynesian demand management policies in the 1970s, which made central bank independence an important anti-inflationary instrument by constraining how much the governments they face could stimulate the economy. But in the 1980s, when governments of the Right and Left began to adopt neo-liberal macroeconomic policies and made price stability a top priority, independent central banks were no longer important constraints on governments' inflationary tendencies.

One of the most important factors driving policy preference change is a change in the economic policy-making environment. This means that the elected policy-makers' preferences for policy outcomes may change because of changes in what the public wants, changes in the economy, or other such changes that could alter the pay-offs to policy-makers. Policy-makers will change their policies to meet these changes in the political environment in order to maximize their electoral chances and political power.

Another factor that could change policy-makers preferences over policy outcomes could be the rise of new ideas about the management of the macro-economy. In other words, policy-makers may learn of new, and what they perceive as better, ways to manage the economy that may change the ordering of their priorities when it comes to economic outcomes. If policy-makers think that these new types of policies will improve their political fortunes, then policy-makers will have an incentive to adopt those new policies.

The late 1970s and early 1980s saw a major change in macroeconomic policy preferences among governments in the advanced industrialized democracies. Until the 1970s, most governments of the Right and Left in the industrialized democracies followed a form of Keynesian demand management (Garrett 1998; Goldthorpe 1984; Hall 1986; Kitschelt et al. 1999). Governments of the Left were quite enthusiastic about Keynesian methods, while governments of the Right generally used Keynesian methods but would try to temper their inflationary effects. Thus, governments of the Right would spend less, relative to Left governments, to get their economies out of economic slumps than would Left governments.

The change in this pattern of policy-making came as a consequence of the experiences of the 1970s. The stagflation of the 1970s convinced many scholars and policy-makers that Keynesian methods had only exacerbated economic problems resulting from the oil crisis. Policy-advocates on the Right recommended abandoning Keynesian demand management for policies that could be referred to as monetarist (or broadly neo-liberal) in their inspiration (Friedman 1970). Monetarists argued that inflation was a serious threat to any economy's long-term health. The key to controlling inflation was controlling the money supply. If the growth of the money supply was kept at a controlled rate, inflationary expectations would be reduced, thus lowering inflation and easing production and exchange decisions.

These policy suggestions found fertile ground among Right and Left governments, which were increasingly convinced that Keynesianism was no longer a viable macro-economic management strategy. Governments on the Right and, to a lesser extent, on the Left looked favorably on neo-liberal policy prescriptions because of the depth of public anxiety over inflation (Anderson 1995). Thus Right and Left governments had an electoral incentive to give more heed to fighting inflation. This was particularly true for Right governments because middle and upper class voters had more to lose from inflation than working class voters. In accordance with monetarist prescriptions, governments began to concentrate on fighting inflation as a top priority to ensure sustained economic growth and lower unemployment. Counter-cyclical spending was cut with the aim of controlling the growth of the money supply and thus keeping inflation in check.

Thus we would hypothesize a negative relationship between the degree of central bank independence and the rate of inflation in the 1970s, but we would not expect to find significant anti-inflationary effects from independent central banks in OECD countries after the 1970s. But we would also hypothesize that partisan effects on inflation would continue from the 1970s into the 1980s because the Right would

have a greater electoral incentive to fight inflation than the Left during both decades.

Whereas macroeconomic policy oriented toward price-stability would reduce the importance of central bank independence to fighting inflation, such a policy would not change the effects of the institutions of industrial relations on inflation outcomes. Centralized bargaining aimed at trading wage moderation for welfare benefits and employment guarantees would lower wage inflation in any type of policy environment. This anti-inflation effect would be most pronounced if the government would be willing to give generous benefits to labor. Thus, if corporatism is accompanied by Left government, we would expect that its anti-inflationary properties would be enhanced as labor would be more willing to cooperate with a Left government than with a Right government, even if the Left government has adopted a neo-liberal policy stance. Thus we hypothesize that there should be a consistent negative relationship between corporatism and inflation in the 1970s and 1980s. The same would hold for the corporatism/Left government (Garrett-Lange interaction) combination.

In the section to follow, we set out to test the hypotheses posited in this section by means of a series of multi-variable regression analyses.

Data and Methods

The data used in this analysis come from several sources. We take the ranking of legal central bank independence directly from Cukierman, Webb, and Neyapti (1992). The index varies between 0.09 and 0.69, with the higher number indicating more independence. We use the decade average aggregate legal independence scores for each of the two decades explored in this paper. The measure for corporatism is from Crepaz (1992), which classified the nature of a country's industrial relations between 1960 and 1992. The index varies between -1.341 and +1.6, with a higher score denoting a more corporatist system. Our research design calls for matching up-to-date measures of political-economic institutions with economic data (inflation). The economic data come from the OECD's Main Economic Indicators. We employ average measures of economic performance over a period of three decades to match the institutional indicators (1961-1992). Inflation is annual change in the consumer price index with 1985 as a base year. Government composition is the share of the governing coalition measured in percent of left party strength, where left party is defined as in Huber and Inglehart (1995).

The analysis proceeds in several steps: First, we present multivariate Ordinary Least Squares models of inflation levels during the 1970s and

1980s. To account for heteroscedasticity occasionally present in the kind of data used here, we report OLS estimates using White robust standard errors (Greene 1993; White 1978). White's (1978) robust standard errors procedure corrects the OLS covariance matrix when heteroscedasticity is present in the data. Thus, the usual set of OLS coefficients is reported, but with the revised, robust covariance matrix.⁵ The Breusch-Pagan test statistic reported in the tables tests for the hypothesis that the data are homoscedastic.⁶ Second, we present multivariate Ordinary Least Squares models of changes in inflation from the 1970s to the 1980s.

Note that we cannot include dummy variables for each individual country because these variables would be perfectly collinear with several of the institutional variables. The claim we make with the model at hand is that the *general* phenomena in the form of cross-national political and institutional variation can be used to explain differences in economic performance, without knowing much about the peculiarities of individual countries. Thus, our research strategy is aimed at replacing country names with variables names as suggested by Przeworski and Teune (1970), instead of explaining away the variance in the dependent variables with country dummies.

Explaining Inflation Levels in the OECD in the 1970s and 1980s

Table 2 shows the results of multivariate model estimations of the effects of political-economic institutions, and government ideology on inflation rates in the OECD countries in the 1970s. To ensure the consistency of effects across alternative formulations, four models are presented: Model 1 includes the three major variables (corporatism, central bank independence, and government ideology) in a simply additive formulation, whereas Model 2 includes the interaction variable originally proposed by Garrett and Lange between corporatism and government ideology. Model 3 is identical to Model 1 but also includes a control for the country's history of inflation in the form of inflation rates during the preceding decade. Countries come with macroeconomic legacies and this variable controls for this, with the expectation that countries with historically higher levels of inflation would continue to have higher inflation rates than those that do not. Finally, Model 4 includes all variables.

The 1970s

The results of the regression analysis show that both corporatism and central bank independence reduced inflation rates during the 1970s.

Moreover, as expected countries governed by left governments had significantly higher rates of inflation. The effects were highly significant substantively and statistically, thus strongly supporting the hypotheses outlined above and indicating that both political-economic institutions and government partisanship had significant effects on price increases during the crisis years of the 1970s.

The results also revealed – as expected – that the Garrett-Lange interaction term between corporatism and government ideology had a significant and negative effect on inflation rates, at least in one of the two estimation models (Model 2). Although the coefficient also was consistent with expectations in the full model, it did not achieve statistical significance. Taken together, these somewhat weaker results still indicate that corporatism coupled with left governments led to lower inflation rates across OECD countries during the 1970s.

The coefficient for inflation history shows that countries that had higher inflation during the 1960s also had higher inflation in the 1970s. Thus, countries that started from a higher base of price increases had a more difficult time keeping inflation low than those who started out low.

Overall, the models fit the data very well. They explained between 54 and 76 percent of the variance, suggesting that the theories described above performed very well in terms of accounting for inflation in the 1970s. The next question is, then, how well they can account for consumer prices during the 1980s?

The 1980s

As in the analysis of inflation rates during the 1970s, the models fit the data quite well, explaining between 51 and 78 percent of the variance. Regarding specific effects, the results of the regression analyses for the 1980s revealed that—as hypothesized—corporatism had a significant and negative effect on inflation rates during the 1980s also. In contrast, however, central bank independence was not significantly related to inflation rates. This indicates that the institutions of industrial relations had a more lasting and consistent impact on consumer prices in advanced industrial societies throughout the 1970s and 1980s, while significant effects for central banks were confined to the crisis years of the 1970s.

The results also showed that government ideology has been a consistent and powerful influence on changes in consumer prices. Countries governed by more leftist incumbents tended to experience higher levels of inflation that those governed by more conservative ones. The coefficients for ideology have powerful effects across all model estimations, thus indicating extremely robust effects.

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Table 2: Models of Inflation in 18 OECD Countries, 1971–80

Dependent variable: Average inflation (in %)

(OLS estimates corrected for heteroscedasticity; White robust standard errors in parentheses)

Variable	Model 1	Model 2	Model 3	Model 4
Corporatism	-2.27***	-1.64**	-2.35***	-2.02***
(high=corporatist)	(.42)	(.61)	(.32)	(.50)
Central bank independence	-9.06***	-8.67***	-7.61***	⁻⁷ ·45***
(high=independent)	(2.47)	(2.58)	(2.02)	(1.81)
Government ideology	4.12**	4.82***	2.43*	2.85**
(high=left)	(1.58)	(1.41)	(1.37)	(1.33)
Garrett-Lange interaction		-1.73		-9.1
(corporatism*govt. ideology)		(1.06)		(1.00)
Inflation history			1.49**	1.44**
(avg. rate during previous decade)			(.42)	(.44)
Constant	11.08***	11.05***	5.63**	5.79**
	(.90)	(.97)	(1.86)	(1.33)
\mathbb{R}^2	.54	.57	.77	.78
Breusch-Pagen c ² (df)	2.44 (3)	2.15 (4)	2.40 (4)	2.42 (5)
SEE	2.10	2.11	1.55	1.59
N	18	18	18	18

^{*:} p < .1; **: p < .05; ***: p < .001

Thus the analyses of inflation rates in the 1980s uncover some differences and some similarities relative to those conducted with data from the 1970s. In contrast to the 1970s, corporatism turned out to be somewhat less significant substantively – though still significant statistically – in the 1980s, while central bank independence had no significant effects at all. The major similarity across the two decades is the impact of government ideology, which strongly supported the expectation that consumer prices rise faster under left governments than under right ones.

When we examined the other coefficients, we found that inflation history again had a highly significant influence on inflation rates in advanced industrial societies. That is, those countries that had higher inflation rates in the 1970s also had higher ones in the 1980s. The consistent result for inflation history across the two decades highlights the importance of policy-legacies for current policy outcomes (Heidenheimer, Heclo, and Adams 1990).

In contrast to the analysis of inflation in the 1970s, the Garrett-Lange interaction variable of corporatism and government ideology has no significant effect during the 1980s. In fact, although the variable comes close to being significant in the partial model (Model 2) and achieves statistical significance in the full model (Model 4), the coefficient is in the wrong direction. This suggests that left governments coupled with a corporatist interest group environment actually

Table 3: Models of Inflation in 18 OECD Countries, 1981–92

Dependent variable: Average inflation (in %)

(OLS estimates corrected for heteroscedasticity; White robust standard errors in parentheses)

Variable	Model 1	Model 2	Model 3	Model 4
Corporatism	97**	-1.57**	35	89**
(high=corporatist)	(.35)	(.49)	(.31)	(.29)
Central bank independence	-3.54	-3.51*	.31	.29
(high=independent)	(2.04)	(2.00)	(1.97)	(1.98)
Government ideology	3.67**	3.98**	3.40**	3.69**
(high=left)	(1.53)	(1.22)	(1.11)	(1.05)
Garrett-Lange interaction		1.37	, ,	1.25*
corporatism*govt. ideology)		(.88)		(.70)
Inflation history		, ,	·49***	.49***
(avg. rate during previous decade)			(00.)	(.08)
Constant	5.60***	5.39***	35	48
	(1.26)	(1.22)	(1.69)	(1.60)
\mathbb{R}^2	.52	.55	.76	·79
Breusch-Pagan c ² (df)	2.94 (3)	1.94 (4)	3.10 (4)	1.27 (5)
SEE	1.58	1.57	1.16	1.13
N	18	18	18	18

^{*:} p < .1; **: p < .05; ***: p < .001

increased inflation significantly during the 1980s. Put differently, the recipe for policy success during the 1970s – consistent government ideology and institutions of industrial relations – ceased to function as expected during the 1980s.

The Decline in Inflation, 1970s-1980s

So far, we have focused on explaining the levels in inflation rates during the 1970s and 1980s. This is important for understanding whether the factors that drive high or low inflation in one decade also affect it in another. However, such an analysis is not designed to answer the question of whether these factors also have contributed to changes in inflation. We know that inflation decreased across all OECD countries from the 1970s to the 1980s (see Table 1). What we do not know is why it decreased more in some countries than in others.

To answer this question, we analyzed models identical to those shown in Tables 2 and 3, with the exception of the dependent variable. Instead of using levels of inflation, we used the *change* in inflation from the 1970s to the 1980s. This means that the dependent variable is negative, ranging from -7.6 to -1.3. Thus, a positive coefficient would mean that high levels of the independent variable were associated with *smaller reductions* in inflation. In addition, given that the dependent variable measures the level of inflation in the 1980s minus the level of inflation

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Table 4: Models of Change in Inflation in 18 OECD Countries, 1970s—1980s

Dependent variable: Change in avg. inflation (in %)

(OLS estimates corrected for heteroscedasticity; White robust standard errors in parentheses)

Variable	Model 1	Model 2	Model 3	Model 4
Corporatism	.30	.18	.50	.07
(high=corporatist)	(.34)	(.59)	(.39)	(.6o)
Central bank independence	4.28*	4.30*	3.81	3.84
(high=independent)	(2.16)	(2.30)	(2.35)	(2.41)
Government ideology	3.13**	3.38**	3.07**	3.30**
(high=left)	(1.10)	(1.09)	(1.35)	(1.32)
Garrett-Lange interaction		1.12	. 00,	.99
corporatism*govt. ideology)		(1.06)		(1.05)
Inflation history			6o	58*
(avg. rate during the 1960s)			(.36)	(.35)
Constant	-6.51***	-6.69***	-4.06*	-4.30*
	(1.10)	(1.15)	(2.27)	(2.23)
\mathbb{R}^2	.38	.41	.48	.50
Breusch-Pagan c ² (df)	1.44 (3)	2.30 (4)	2.47 (4)	2.48 (5)
SEE	1.60	1.62	1.54	1.56
N	18	18	18	18

^{*:} p < .1; **: p < .05; ***: p < .001

in the 1970s, including level of inflation during the 1970s as an independent variable as well would have been problematic. To measure inflation history, we therefore utilized inflation rates during the 1960s to avoid multicollinearity. Table 4 shows the results.

The analyses unearthed some interesting and unexpected findings. Specifically, they showed that corporatism – which was associated with lower *levels* of inflation in the 1970s and 1980s – was unrelated to changes in inflation. In contrast, central bank independence was significantly and positively related to changes in inflation. This means that countries with more independent central banks showed smaller decreases in inflation from the 1970s to the 1980s. Although this may seem counterintuitive at first glance, it is consistent with the notion that policy legacies matter. If, as Table 2 showed, countries with independent central banks had significantly lower levels of inflation during the 1970s, they started the 1980s from a lower base. This also means, of course, that they were unlikely to see inflation decrease more than other countries, given that their inflation levels already were low.

Left government ideology, which was strongly associated with higher levels of inflation during the 1970s and 1980s was significantly and positively related to changes in inflation rates. Consistent with previous analyses (Tables 2 and 3), Left governments during the 1980s struggled to keep inflation down more than did Right governments.

That is, the more left a country's government during the 1980s, the smaller the decrease in inflation relative to the 1970s.

As expected, the inflation history variable again showed the importance of policy legacies. Countries with higher levels of inflation during the past showed more significant decreases in inflation during the 1980s. In contrast, the Garrett-Lange interaction variable turned out to be insignificant.

Discussion

What do the results tell us in general about the role of institutions, government partisanship and inflation? Clearly, inflation is not merely the product of economic forces. The path of inflation is affected by the political economic structures within countries as well as who is running macro-economic policy and toward which goals.

The results of the regression analysis show that the standard arguments made about what factors condition inflation were supported by the evidence from the 1970s. Central bank independence, corporatism, and right governments all were factors that keep inflation relatively lower. But the standard arguments did not hold up when the 1980s were examined. While corporatism still acted as a brake on inflationary pressures, central bank independence was no longer a significant factor in dampening rising prices. The finding that corporatism still acted as a significant damper on inflation in the 1980s is particularly important given a number of recent works arguing that corporatism will have to give way to more liberalized labor markets in an increasing globalized economic environment (Kurzer 1993; Scharpf 1991). Our findings indicate that corporatism was alive and well as a factor holding down inflation in the 1980s, a period of pronounced liberalization of international markets. If corporatism is in decline, it could mean the introduction of more price volatility where it is waning.

But the combination of corporatism with a left government seemed to push inflation in the 1980s rather than depress it as it had in the 1970s. This finding seems to contradict the recent work of Garrett (1998), who argues that the combination of Left governments and societal corporatism continues to produce lower relative inflation rates. So what accounts for these different outcomes across decades?

The results of the analysis seem to support the argument made here that there was an important political change in the 1980s that affected the relationship between central bank independence and inflation. Principally, the shift of the Right and the Left away from Keynesianism and toward monetarist-inspired policies changed how central bank independence affected the rate of inflation. Because governments

adopted fiscally tight macro-economic policies, central bank independence was no longer an important factor in constraining governments.

It is important to note that the regression analysis shows that government partisanship became a more significant variable during the 1980s. This also lends support to our argument that there was a profound and important change among mainstream Left and Right political parties in industrialized democracies that reshaped their macroeconomic policy preferences. Because the Right rejected Keynesianism so completely, the macro-economic policy differences between the Left and the Right became a bit more salient.

The change in effect of the combination of Left government with corporatism was not expected but is not inexplicable. One potential explanation is that as Left governments turned toward more neo-liberal macroeconomic policies, they angered their labor allies. Labor may have been less willing to corporate with the Left government than previously because of this policy shift. The lack of cooperation may have been a protest at a Left government's willingness to put the interests of business before those of the working class. This seems to have been the case in several West European states during the 1980s as Left governments sought to scale back spending to reduce inflationary pressures, and, while doing so, provoked confrontations with their union supporters. In any case, this empirical finding is a call for further research on the relationship between Left parties and their labor constituents in corporatist settings.

A key question that is raised by our findings is what they mean for what has been happening in the 1990s. What seems to be happening in the industrialized democracies is a narrowing of the policy differences between Left and Right parties. There is a plethora of examples of left parties abandoning traditionally left economic policy positions and moving toward the macro-economic policy positions of the Right. Salient examples of this trend have been the British "New" Labour Party, the German Social Democrats, the U.S. Democrats, and the Italian Party of the Democratic Left. All of these parties made these shifts in their policy positions because of the perceived electoral costs of adhering to the "old Left" policies of pump-priming the economy during economic downturns. The median voter had turned against such policies because they seemed to fuel inflation, which had hurt almost everyone during the 1970s, and because the generous spending policies called for high taxes. Thus, one can see a marked convergence toward neo-liberal policies by the Right and the Left by the 1990s. A neoliberal consensus seems to have developed that mirrors the Keynesian consensus the Right and Left had prior to the 1980s.

The convergence toward neo-liberalism means that the importance

of government partisanship for explaining cross-national variations in inflation outcomes may be diminishing in the 1990s. It also means that the effect of central bank independence as a factor determining low inflation outcomes may diminish even further. Governments in industrialized democracies are opting increasingly for low inflation, with or without an independent central bank. Corporatist institutions of industrial relations will likely continue to suppress wage inflation in countries that have them, but corporatism seems to be breaking down in several industrialized democracies. Corporatist wage agreements are increasingly giving way to firm-level pay deals in Northern Europe, where corporatism has been traditionally at its strongest.

The emerging neo-liberal consensus and the possible break-down of corporatism means that cross-national variations in inflation may not be determined by political and institutional factors as much as they were in the past. Cross-national variations in inflation rates may be driven more by economic factors and less by politics. This could represent a fundamental change in the political economy of inflation.

This changing nature of the political economy of inflation is crucially important to the future of one of the most ambitious political-economic projects of modern history, the European Monetary Union (EMU). One of the key concerns of EMU was that there would be a lack of consensus among policy elites over the goals of monetary and fiscal policy and that national inflation rates would diverge, causing economic and political tensions within the common currency area. This study would seem to allay at least some of that fear. It would appear that the emerging neo-liberal consensus on inflation will diminish the chances that serious policy differences will erupt between either national leaders or policy-makers within EU institutions like the European Central Bank (ECB).

Conclusion

In this paper, we sought to explore the political factors that could account for variations in inflation rates across industrialized democracies in the 1970s and 1980s. The political variables that were thought to influence inflation rates were the degree of central bank independence, the nature of industrial relations, the combination of corporatism and a left government, and government partisanship. We set out to explore whether the effect of these political variables on inflation rates had changed from the 1970s into 1980s. We hypothesized that the political economy of inflation had changed in the 1980s because right and left parties in industrialized democracies had abandoned Keynesianism and had adopted neo-libreal or monetarist-inspired macro-economic policies. Most importantly, we argued that central bank independence has lost much of

its importance for fighting inflation because of the shift in OECD governments' policy preferences since the 1970s. In order to test this hypothesis, we divided our analysis into two parts, regressing political variables against inflation rates for the 1970s and 1980s separately.

The analyses showed that there was in fact a change in the effect of central bank independence on inflation rates from the 1970s into the 1980s. The regression analysis showed that in the 1970s, central bank independence, corporatism, right governments, and the combination of corporatism and Left government all had dampening effects on inflation. This changed in the 1980s. Central bank independence no longer was a significant factor in affecting inflation rates, whereas government partisanship became an even more important factor in determining inflation rates. These results provided supporting evidence that the political economy of inflation in industrialized democracies had changed because of the change in macro-economic policy priorities among policy-makers. The Right and Left had made fighting inflation a top priority, making an independent central bank less important for keeping inflation in check.

The results of the analysis done here provide food for thought for students of institutional analysis and political economy. They demonstrate that the political-economic institutions may not always produce the outcomes for which they were intended. Institutions may lose their relevance over time or may actually produce outcomes that their creators would not want. Such changing institutional outcomes come as the result of relevant actors altering their behaviour in the context of adopting new ideas or facing changing incentives to abide by institutions.

Further research on the political economy of inflation should focus on how domestic and international changes in the political and economic context are creating new incentive structures for policy-makers to maintain the macro-economic policy status quo in their countries. It would be particularly interesting to explore how economic globalization and the creation of new international institutions affects the decisionmaking calculus of those charged with making macro-economic policies.

NOTES

- Cukierman, Webb, and Neyapti (1992) also found that this relationship does not hold in developing countries. Their analysis indicates that the governments of developing countries have a tendency to ignore the rules in order to achieve their desired policy outcomes, which seldom include low rates of inflation as a primary goal.
- 2. Schmidt (1982, 1985) has argued that it does not really matter whether the government is dominated by parties of the left or the right. Instead, he finds that ideological tendency of society affects economic performance to a greater extent. Thus, in contrast to many writers on the subject, he sees ideologically committed political parties in power as constrained actors

- who function in a distinct institutional setting. Parties alone, so Schmidt argues, are incapable of effecting particular policy outcomes.
- 3. We also considered the impact of international constraints, specifically membership in the European Monetary System (EMS) on domestic inflation. As it turned out, EMS membership had absolutely no influence on inflation rates and was therefore not examined further.
- 4. There have been several attempts to create indices of central bank independence (Alesina and Summers 1993; Bernhard 1998; Cukierman, Webb, and Neyapti 1992; Grilli, Masciandaro, and Tabellini 1991). We use the Cukierman, Webb, and Neyapti index because 1.) It is the only index to cover all of the countries in this study; 2.) it broke the index values down into decade averages; and 3.) it covered the countries through the entire time period examined in this study.
- 5. The White procedure is a method of testing for and estimating with heteroscedasticity in the linear regression model. The underlying model is yi = β'xi + εi, E[εi] = 0, Var[εi] = σ2ωi. The ordinary least squares (OLS) estimator of β, b = (X'X)-1X'y is consistent, and has the covariance matrix Var[b]= σ2(X'X)-1X'ΩX(X'X)-1 = Σ. The usual estimator, V = s2(X'X)-1 may not be consistent if the variables in x⊗x are correlated with the observation specific variances, ωi. White's (1978) consistent estimator of Σ is Sw = (X'X)-1[Σiexxixi'(X'X)-1. For the underlying theory of this estimator, see White (1978) or Greene (1993). Alternative strategies for dealing with heteroscedasticity include procedures developed by Horn, Horn, and Duncan (1975) and by Mackinnon and White (1985) or employing Weighted Least Squares.
- The Breusch-Pagan statistic tests the hypothesis of homoscedasticity. It has a limiting chisquared distribution with degrees of freedom equal to the number of independent variables not including the constant term.
- 7. Naturally, it would be preferable to control for national idiosyncrasies while accounting for the suspected general phenomenon. However, this is impossible because of the aforementioned collinearity problem. We tested the model together with incomplete sets of dummies for the individual countries in order to see whether any problems emerged when some or most of the country dummies are included. The results of the general model presented in the paper turn out to be extremely robust. To ensure that the results were not driven by outlier countries, we also conducted sensitivity analyses that dropped one country at a time and re-estimated the equations. We also predicted countries' inflation rates from the estimated equations and correlated the actual with the predicted values. These supplemental analyses showed that the correlation between actual and predicted values was .88 (1970s) and .89 (1980s), and that there were no outliers that skewed the results we report in the paper. We are therefore confident that our results are robust; that is, that they are not driven by outliers.

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Appendix: Descriptive Statistics

Variable	Mean	Std. Dev.	Minimum	Maximum
Inflation rate, 1971–80	9.41	2.82	5.00	13.90
Inflation rate, 1981–92	5.48	2.06	2.10	9.10
Change in inflation rate, 1970s-1980s	-3.93	1.85	-7.6o	-1.30
Corporatism	.00	1.00	-1.34	1.60
Central bank independence	.37	.17	.17	.69
Government ideology, 1971–80 (high=left)	.37	.32	.00	1.00
Government ideology, 1981–92 (high=left)	.32	.28	.00	.82