JAN C. SIEBRAND
OTTO H. SWANK
Erasmus University Rotterdam
Rotterdam, The Netherlands

*Partisan Profiles in Presidential Policies: An Extension of "Presidential Preferences for Inflation Versus Unemployment"**

In a recent article, Zaleski does not find any clear difference between the political preferences of Republican and Democratic administrations with respect to the choice between unemployment and inflation. This paper provides empirical support for the opposite conclusion in a generalization of Zaleski's approach allowing for instrument costs.

1. Introduction

In a recent issue of this journal, Zaleski (1992) demonstrates that the inflation/unemployment ratio may be used as an indicator of the motives behind presidential policies. His sample, the period 1961:*iii*–1989:*ii*, does not reveal any clear Democratic or Republican policy pattern. This result conflicts with those of many other studies (for example, Hibbs 1977; Alesina and Sachs 1988; Chappell and Keech 1988). In this paper we argue that Zaleski's approach is a special case of a more general approach to the estimation of "revealed" preferences. We show that the introduction of instrument costs reverses Zaleski's conclusion that Republican administrations are not more inflation averse than Democratic administrations. Before that, we will briefly review Zaleski's approach.

2. Zaleski's Approach

The key role of the inflation/unemployment ratio in Zaleski's article is based on the ratio (a/b) of the relative weights of unemployment (U)—in deviation from its desired value (U^*)—and inflation (p) in the policy maker's quadratic loss function:

$$Z = a\cdot(U - U^*)^2 + b\cdot(p)^2 \,. \tag{1}$$

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If the loss is minimized subject to the short-run Phillips curve,

$$p = f(U, p^e), \qquad (p^e \text{ refers to the expected inflation}), \tag{2}$$

the "preference ratio" can be derived from the first-order condition as[1]

$$(a/b) = -[p/(U - U^*)] \cdot \partial f/\partial U . \tag{3}$$

As Zaleski takes the desired value of unemployment to be zero and adopts a linear Phillips curve, borrowed from Smyth, Washburn and Dua (1989),[2] this result can be written as

$$(a/b) = -\partial f/\partial U . (p/U), \tag{4}$$

in which $\partial f/\partial U$ is a constant (-1.288). Next, using actual values of U and p, Zaleski calculates and evaluates the average preference ratio for each presidential period.

3. Instrument Costs

Zaleski's paper is based on the Barro-Gordon model which is a simple quadratic-linear model, revolving around the trade-off between output (unemployment) and inflation. Because of its analytical tractability, the Barro-Gordon model is very useful to examine important economic concepts, such as credibility, reputation and signaling (Persson and Tabellini 1990). Moreover, the Barro-Gordon model seems to be relevant. In the postwar period, unemployment, inflation and their trade-off have played a dominant role in discussions about stabilization policy. The quadratic loss function, representing the preferences of the policy maker, is flexible: it may represent the preferences of both policy oriented policy makers (Alesina 1987 and Swank 1993) and electoral oriented policy makers (MacRae 1977). However, some features of the Barro-Gordon model are clearly stylized. In particular, the assumption that the policy maker sets either inflation or unemployment directly is shorthand for a more complete model in which the policy maker sets actual instrument variables (Persson and Tabellini 1990, 9). In empirical analyses, this assumption calls for relaxation. This can be done in two ways. First, a complete model could be specified, describing the links between instrument and target variables. This approach has the drawback that it would increase the sensitivity of the estimates for the weights in the loss function to specification uncertainty. Second, the policy maker could be assumed to have only imperfect control over unemployment and inflation. This approach

[1]Zaleski mistakenly omits the first minus sign.

[2]The Phillips curve estimated by Smyth, Washburn and Dua (1989) is $p - p^e = -1.288 \cdot (U - 6.730) + 0.072 \cdot p^n$, where p^n is the rate of inflation of energy prices.

implies that the relationships between actual instruments and unemployment and inflation are surrounded with uncertainty (compare Cuckierman and Meltzer 1986 and Swank and Hebbink 1992). Gordon (1976) points out that this type of uncertainty can be incorporated in quadratic-linear optimization problems by adding instrument costs to the loss function. He shows that the quadratic-linear policy problem under uncertainty without instrument costs is equivalent to the policy problem without uncertainty with instrument costs. These considerations warrant the introduction of instrument costs into the loss function to account for imperfect control of unemployment and inflation. This approach is followed in the next section.

4. Empirical Results

In principle, instrument costs can be attached to either the inflation rate or the unemployment rate or to both. To facilitate the comparison with Zaleski's results, we will use the same Phillips curve as the restriction under which the policy maker optimizes (see footnote 2). As in that equation the inflation rate is the dependent variable. We assume that the policy maker attaches costs to the adjustment of the unemployment rate. Thus to account for instrument costs, we add a third term to the loss function, attributing costs to the deviation of the level of the unemployment rate from its previous value (U_{-1}). If, without loss of generality, the weights are normalized to add up to one, the following loss function results:

$$Z = a\cdot(U - U^*)^2 + b\cdot(p)^2 + [1 - a - b]\cdot(U - U_{-1})^2 . \qquad (5)$$

Equation (5) contains Zaleski's as a special case (namely for $a + b = 1$).[3] We maintain zero unemployment as the target value, so that the term U^* drops from the equation. Under the present assumptions the preference ratio cannot be expressed in terms of the inflation/unemployment ratio. But the first-order conditions enable us to express the unemployment rate in terms of its lagged value and an inflation-dependent term:

$$U = (1 - b)^{-1}\cdot(1 - a - b)\cdot U_{-1} - (1 - b)^{-1}\cdot b\cdot c\cdot p . \qquad (6)$$

The parameters of this reaction function can be estimated by using actual values of U, p and the estimated value of c (=−1.288). The first five rows in Table 1 present the results for individual administrations.[4] With the exception of the a coefficient in the Eisenhower era and the b coefficient in the (for lack of observations consolidated) Kennedy/Johnson era, all coefficients are

[3]Note that the weights in (1) can be multiplied by any positive value without affecting the properties of the loss functions. Due to this, the weights in the loss function can be normalized.

[4]We have also estimated the political preferences of the Eisenhower administrations.

TABLE 1. *Estimation Results (Equation 6)*

Administration	a	b	(a/b)	ρ	adjusted R^2	sample
Eisenhower	0.036	0.133*	0.3	0.201	0.942	53:*iii*–61:*ii*
	(0.026)	(0.032)		(0.230)		
Kennedy/Johnson	0.035*	0.010	3.5	0.331	0.966	61:*iii*–69:*ii*
	(0.010)	(0.014)		(0.142)		
Nixon/Ford	0.089*	0.073*	1.2	0.589	0.955	69:*iii*–77:*ii*
	(0.021)	(0.014)		(0.199)		
Carter	0.130*	0.066*	2.0	0.036	0.890	77:*iii*–81:*ii*
	(0.035)	(0.016)		(0.699)		
Reagan	0.078*	0.103*	0.8	0.699	0.967	81:*iii*–88:*iv*
	(0.019)	(0.014)		(0.208)		
All	0.033*	0.034*	1.0	0.411	0.922	53:*iii*–88:*iv*
	(0.010)	(0.008)		(0.084)		
Democrats	0.045*	0.027*	1.7			
	(0.019)	(0.012)				
				0.413	0.927	53:*iii*–88:*iv*
				(0.108)		
Republicans	0.036*	0.050*	0.7			
	(0.011)	(0.011)				

NOTE: All equations are estimated with nonlinear least squares and are corrected for auto-correlation with the Cochrane-Orcutt method. Standard errors are in parentheses. * indicates significance at a 0.01 level. F-statistic for the restrictions that a and b are equal for Democrats and Republicans is 4.86 (5% critical value is 3.07).

significantly different from zero at the 1% level. There is a consistent partisan pattern in the preference ratios, with Democrats attributing relatively more weight to the unemployment target, and Republicans to the combat of inflation. To test the hypothesis that over the period 1953:*iii*–1988:*iv*. Democrats and Republicans had equal preferences, we compare two regressions in which all observations are pooled. In the first, we impose the restrictions that a and b did not change with the political color of the president. In the second, we introduce party related dummies to represent political preference differentiation. The restrictions that a and b are equal under Democratic and Republican administrations are rejected (χ^2 statistic = 7.54; 5% critical level = 5.99)[5] As both for Democrats and Republicans the sum of a and b is significantly lower than 1, the Zaleski case ($a + b = 1$, amounting to the absence of instrument costs) is also rejected.

[5]If Democrats and Republicans attribute the same costs to instrument manipulation, the hypothesis that a/b is the same for Democrats and Republicans is equivalent to the hypothesis that Democrats and Republicans have equal preferences.

5. Conclusions

The amendments elaborated above cast serious doubt on the conclusions of Zaleski's article. We have presented evidence that Democratic and Republican administrations show a different partisan profile in their economic policies. As suggested before, this result appears in line with many other studies in this area. We want to stress, however, that the last word is far from being said in this debate. Variation of the assumptions underlying the estimation of political preferences may generate a host of models, the results of which do not necessarily lead to one indisputable conclusion.

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