The Economics of POLITICS

How far do individuals agree/differ on 'public' goods?
Keynes and benevolent despots
Can majority voting represent the 'public interest'?
Are civil servants 'economic eunuchs'?
Can constitutions control government?

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4. The Political Business Cycle: Theory and Evidence

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I. CASUAL OBSERVATIONS

The fact that governments actively create business cycles in order to improve their re-election chances, and do not simply follow the Keynesian prescription of anti-cyclical policy, has often been observed in the United Kingdom. Thus, in 1969, Professor Robin Matthews [1] pointed to a 'government-driven cycle' and Angus Maddison [2] even suggested that 'government action is the proximate cause of most upswings and downswings'. Earlier, in 1964, Mr. J. C. R. Dow [3] noted in his analysis of the British economy between 1945 and 1960 that 'fiscal and monetary policy failed to be stabilising'. Similar arguments have been advanced by Professor Alan Prest [4] and Mr Samuel Brittan [5] for later periods. Another type of Marxian-inspired political business cycle following from the government's use of Keynesian macro-economic steering was very early suggested by Kalecki in 1943 [6].

Over the last few years, the economic theory of politics has devoted considerable attention to the idea of politically induced cycles. Its theoretical bases have been analysed and its existence has been the subject of empirical studies.

II. THEORETICAL APPROACHES

The Phillips Curve describing the trade-off between inflation and unemployment has provided a convenient starting point for the theoretical analysis of political cycles. The rate of inflation is taken to be dependent on the rate of unemployment as well as on inflation expectations prevailing in the population. The larger the unemployment, and the lower the expected inflation, the lower, it was thought, the actual inflation would be. Inflation expectations are taken as being dependent on recent experience of inflation. If this relationship holds in the economy—and there was considerable empirical evidence that it does—a government able to control the rate of unemployment by fiscal and/or monetary policy can increase its chances of re-election by producing a political business cycle. The voters dislike both unemployment and inflation, and will tend to support a government which provides high employment and stable prices at election time.

A government intending to maximise the number of votes received at election time should thus pursue the following policy: immediately after being elected (or re-elected), it should undertake a deflationary policy by increasing the rate of unemployment to combat inflation. Over the course of the period of government, unemployment should be reduced continuously to reach its minimum at election. The creation of this cycle is fruitful for election purposes because the deflationary policy undertaken at the beginning of the term of office constitutes an investment in the future: inflation expectations are depressed and the whole Phillips Curve shifts towards the origin, making it possible to have both inflation *and* unemployment lower at election time. Accelerated inflation *after* the election date due to low unemployment does not concern a vote-maximising government, whose time-horizon is confined to the current election period.

The optimal political business cycle from the government's point of view then has the following shape (Fig. 1):

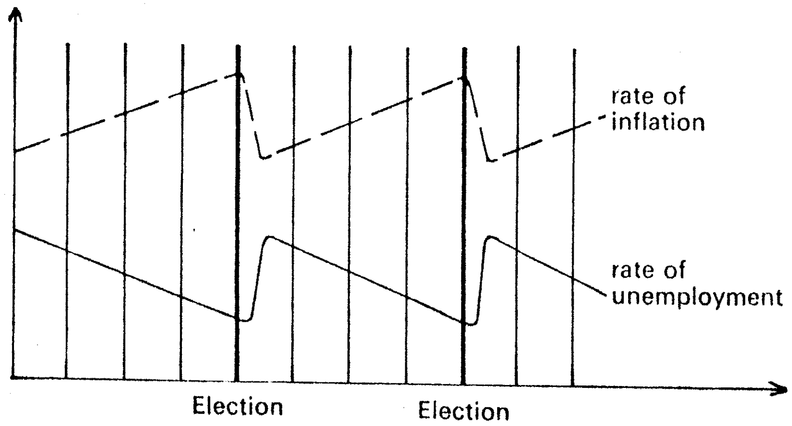

Fig. 1
Vote-maximising election cycle

The rate of inflation rises over the election period; reaches its maximum shortly after the election; is then quickly reduced by a deflationary policy to rise again thereafter. The rate of unemployment continuously falls over the period of office and increases strongly after an election.

Another political business cycle is even easier to imagine, as it relies on the voters' interest in rapid income gains and simply takes

advantage of the time-lags inherent in the economic system. Increases in the rate of inflation as a rule occur after an upswing in production, and after a reduction in the rate of unemployment. A government interested in winning votes at election time is little concerned with the price increases that will occur after the election. It will undertake a strongly expansionary policy as the election approaches, and the voters will benefit from high income increases (and low unemployment) at election time. If the election is nevertheless lost, the high inflation thus induced will still make itself felt under the next government—which is formed by the opposition—and this increases the chances of the government returning to power soon.

III. EMPIRICAL OBSERVATIONS

Have governments produced such election cycles with decreasing unemployment, rising inflation and rising growth of income?

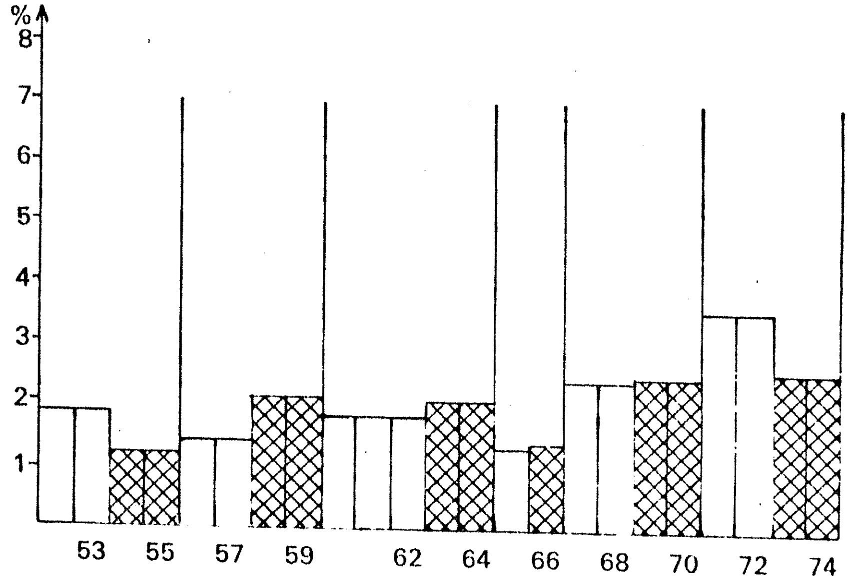

Fig. 2
Rate of unemployment (per cent) over the six election periods 1952-74, United Kingdom

Fig. 2 shows the development of the rate of unemployment (as a percentage of the labour force) over the six government periods 1952 to 1974 in the United Kingdom. (For simplicity's sake, the periods are taken to cover complete years.) The government periods are divided into two post-election years (white) and two pre-election years (criss-crossed); in 1965-66, these periods comprise only one year each. The rate of unemployment was lower in the second as compared with the first half of the election period in 1952-55 and 1971-74. In the election periods 1956-59 and 1960-64, the rate of

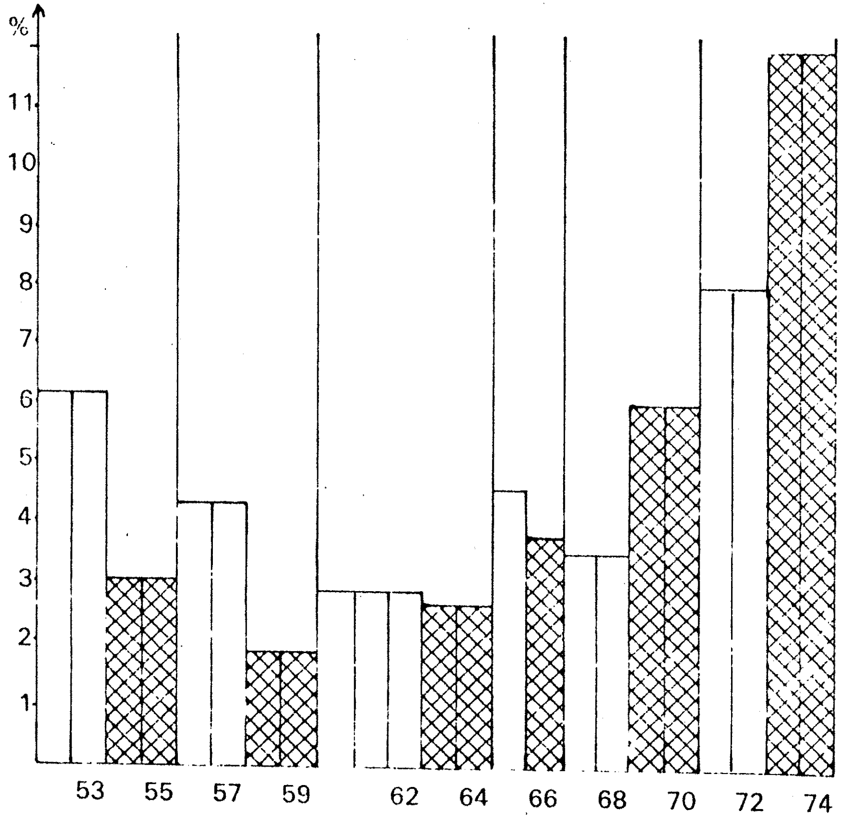

Fig. 3
Rate of inflation (per cent) over the six election periods 1952-74, United Kingdom

unemployment was clearly higher in the second as compared with the first part of the term.

Fig. 3 shows the development of the rate of inflation. It corresponds to the vote-maximising business cycle discussed above only in the government periods 1967-70 and 1971-74, when inflation was higher in the second part of the election period than the first part. During the other government periods the inflation rate was lower in the years before than in those after an election. It should be noted

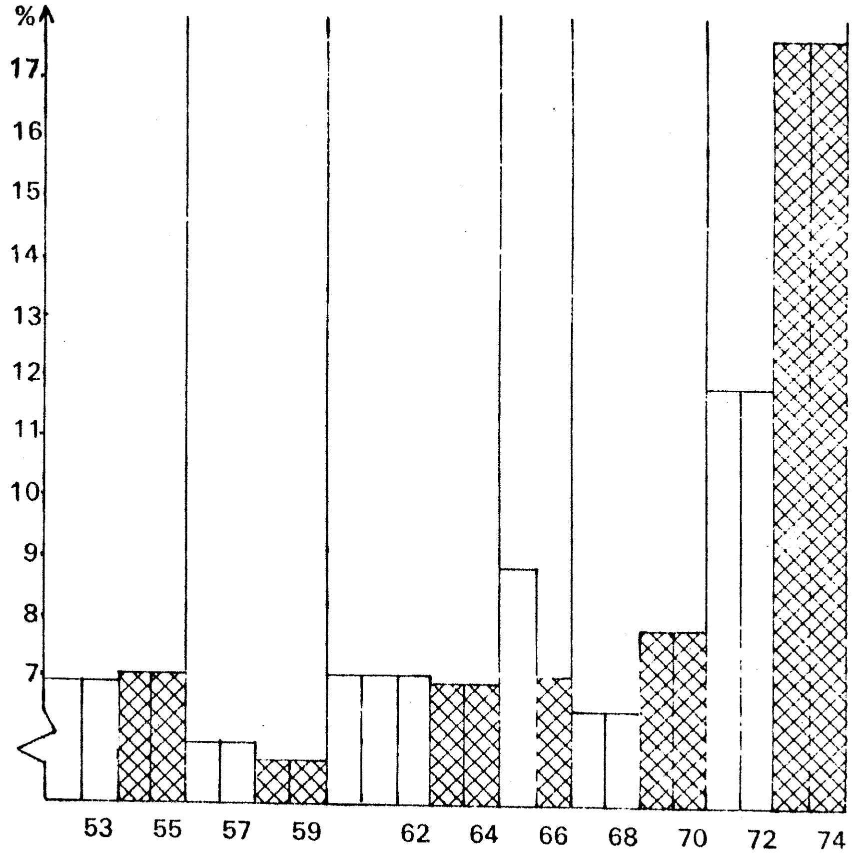

Fig. 4
Growth rate of disposable nominal income (per cent), over the six election periods 1952-74, United Kingdom

that there has been a strong trend towards increases in inflation since the mid-1960s.

The development of these two macro-economic variables (the rates of unemployment and of inflation) gives little evidence for the particular vote-maximising election cycle based on the Phillips Curve referred to above. This conclusion applies not only to the United Kingdom but also to the United States and Germany [7].

For the United Kingdom, there is no political business cycle observable in the macro-data on income growth. As is shown in Fig. 4, the percentage rate of increases in disposable nominal income was clearly higher before (as compared with after) elections only in the last two government periods, 1967-70 and 1971-74. In the election of 1966 the growth rate was much lower than in 1965,

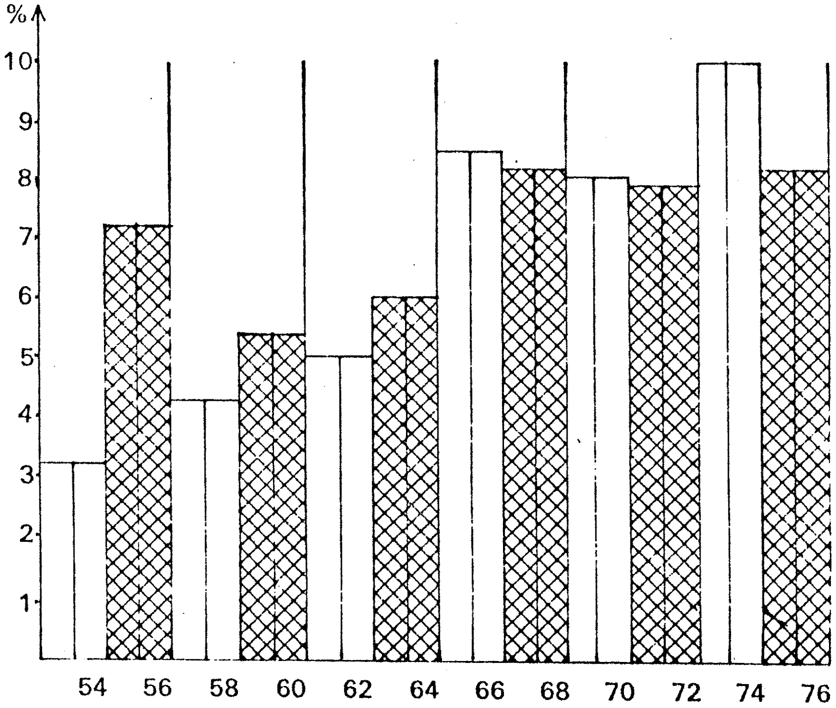

Fig. 5

Growth rate of disposable nominal income (per cent), over the six presidential administrations 1953-76, United States

but it should be noted that the election took place early, on 31 March. In all the other election periods there is no clear difference between pre- and post-election years.

In the United States, a political business cycle in terms of growth of disposable nominal income is clearly visible for the first three election periods considered, namely Eisenhower's two terms (1953-56, 1957-60) and the Kennedy/Johnson term (1961-64). The growth rate of income was, however, clearly lower in the two pre-election years of the joint Nixon/Ford administration (1973-76) compared with the post-election years (Fig. 5).

In Germany, there is weak evidence for the existence of an electoral cycle in terms of the growth rate of nominal income. In five election periods (1950-53, 1954-57, 1958-61, 1966-69, and 1973-76) there is an increase in the growth rate in the second half of an election term as hypothesised, but the opposite is true for the periods 1962-65 and 1970-72 (Fig. 6).

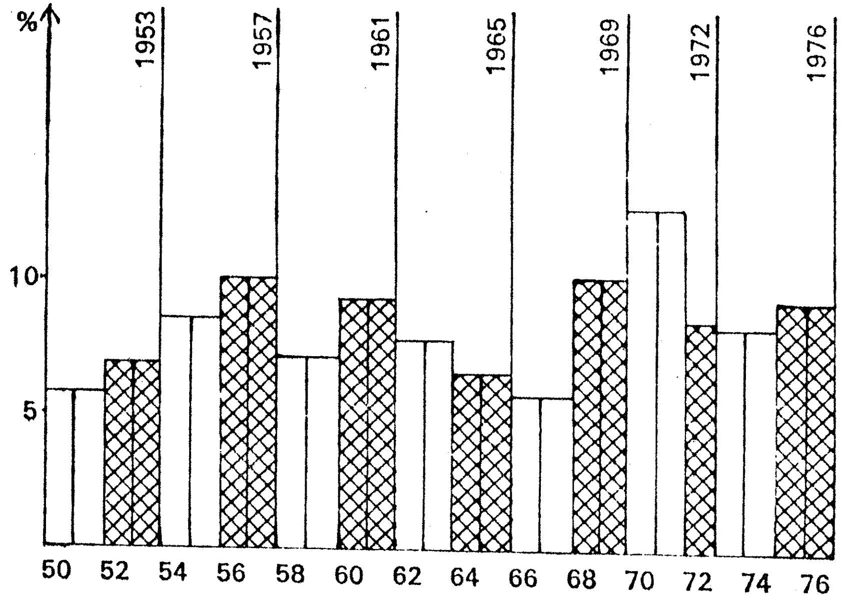

Fig. 6

Growth rate of disposable nominal income (per cent), over the seven election periods 1950-76, Germany

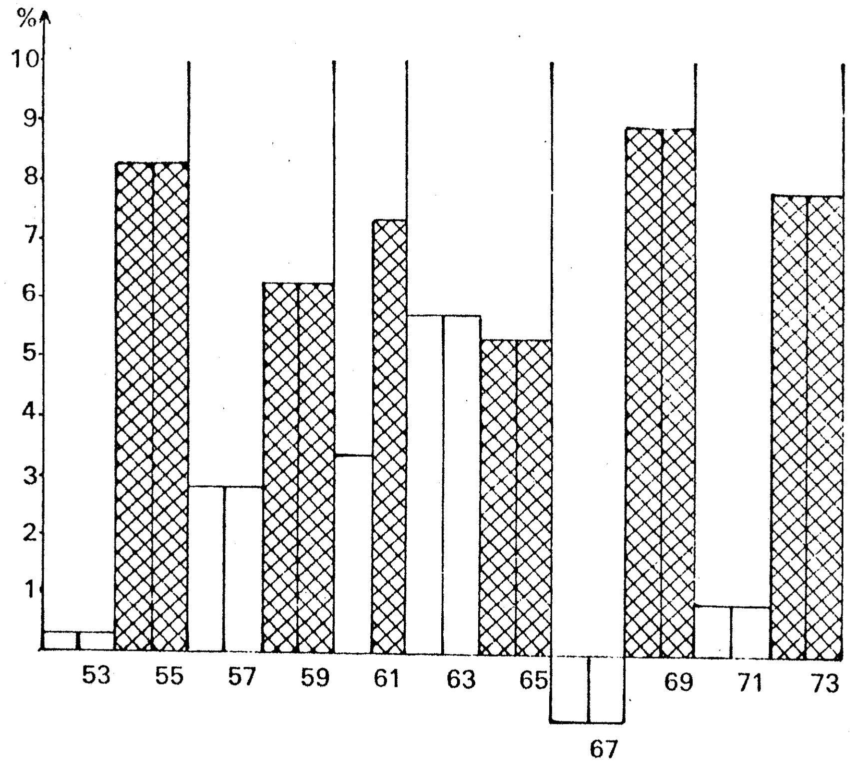

Fig. 7
Growth rate in per capita consumption (per cent), over the six election periods 1952-73, Israel

The clearest evidence by far for a politically produced business cycle as evidenced by aggregate economic variables is shown by Israel. With the exception of one election term (1962-65), the growth rate of per capita consumption was always much higher in the two years preceding an election for the Knesset than in the years thereafter (Fig. 7).

The empirical results presented are quite sensitive with respect to the exact definition of the economic variables, the periods considered, and the breakdown between pre- and post-election years. If, for example, the growth rate of real (and not nominal) income in the

TABLE 1

THE GROWTH RATE OF DISPOSABLE REAL INCOME IN THE PRESIDENTIAL ELECTION YEAR COMPARED TO OTHER YEARS, 1933-1973, UNITED STATES

	Year with presidential election	*Years without presidential election*
Increasing growth rate	10	24
Decreasing growth rate	0	7

United States in presidential election years is compared with its value in the three non-election years over a 40-year period, an election cycle becomes more apparent [8]. Table 1 shows that the growth rate of real income increased in all the presidential election years. In the years with no presidential elections, income growth increased in 24 years only, and decreased in seven.

Empirical evidence unclear

The Figures and Tables presented as empirical evidence create a mixed impression. Though some political business cycles can be detected (mostly for growth in income and consumption), it is on the whole not possible to identify a clear and regular political business cycle. Various reasons may account for this, such as the international inter-dependence among industrial countries and the fact that there are other important elections in between general national elections (e.g. congressional elections in the US, state elections in Germany).

The approach of examining raw data only over time is seriously deficient. A careful empirical study requires an *isolation* of the election cycle: all influences not connected with it must be excluded. Even if a political business cycle may be detected, the fluctuations observed *may* be due to other things such as the traditional four- or five-year economic business cycle. If, on the other hand, no election cycle is visible in the macro-variables considered, it cannot be concluded that no such cycle exists: it may be swamped by other phenomena. The only way to isolate electoral cycles from other influences is to construct carefully formulated theoretical models which specify exactly in what way the government is envisaged to create political cycles. Only if the hypotheses advanced on this basis are not rejected by econometric or rather 'polito-metric' testing is it correct to suggest that political business cycles do in fact exist.

IV. POLITO-METRICS

The possible existence of political business cycles may be tested within the framework of politico-economic models which analyse the inter-dependence between the economy and polity.[1] A very simple model which has the advantage of having been empirically tested will now be sketched.

The interaction between the economy and the polity is captured by two functions:

(*a*) The *popularity function* shows the influence of economic conditions on current government popularity, as regularly measured by Gallup or other national opinion polls. The popularity index serves the government as an indicator of likely future election outcomes. The rates of unemployment, inflation, and growth of income are the most important economic determinants of government popularity and election outcome.

(*b*) The *policy function* describes the government's reaction to its projected chances of re-election. If, owing to a low popularity index, re-election is seen as being in danger, the government uses policy instruments at its disposal to improve economic conditions. If, on the other hand, public opinion polls point to a comfortable re-election, the government can afford to take economic actions that correspond to its ideological position even if they do not necessarily bring in votes. Government is thus not assumed to be continually maximising votes but rather to maximise its own utility, i.e. to undertake ideologically motivated policies, subject to various constraints. The most important constraint is the necessity of being re-elected (because otherwise the ideological programmes cannot be realised); besides these are economic (budget and balance-of-payments) and administrative constraints.

The popularity and policy functions sketched have been empirically

[1] A survey of the various approaches and models constructed is in Bruno S. Frey, 'Politico-Economic Cycles and Models', *Journal of Public Economics*, 9, 1978, pp. 203-20.

TABLE 2

THE INFLUENCE OF ECONOMIC VARIABLES ON GOVERNMENT POPULARITY IN THREE COUNTRIES, POST-WAR PERIOD

Economic variables (percentage points)	*Country and period* U.K. (1959-74)	U.S.A. (1953-75)	Germany (F.R.) (1951-75)
Rate of unemployment	−6·0	−4·2	0·9
Rate of inflation	−0·6	−1·0	−0·7
Growth rate of real disposable income	+0·8	+0·4	+0·4

estimated for various countries.[2] Table 2 shows the influence of the three macro-economic variables mentioned above on government popularity in three countries, based on quarterly polito-metric estimates.

In the United Kingdom in the period 1959 to 1974 an increase in the rate of unemployment of one percentage point decreased government popularity by 6·0 percentage points; the same increase in the rate of inflation reduced it by 0·6 percentage points. A rise in the growth rate of real disposable income raised government popularity by 0·8 percentage points. The impact of economic variables on popularity was of similar magnitude in the United States, while unemployment in Germany seems to have had a much smaller impact on government popularity than in either the UK or the US. It should be noted that the figures presented serve only as a rough indication of the magnitudes involved, and apply only to the periods indicated. The estimates depend, of course, on the exact specification of the popularity function.

For reasons of space it is not possible to present here the complete numerical estimates of the policy function. It must suffice to state the results verbally. The polito-metric estimation results suggest for all

[2] A complete presentation of the particular estimates is provided in Bruno S. Frey and Friedrich Schneider, 'A Politico-Economic Model of the United Kingdom', *Economic Journal*, 88, June 1978, pp. 243-53; 'An Empirical Study of Politico-Economic Interaction in the U.S.', *Review of Economics and Statistics*, 60, May 1978, pp. 147-83; 'An Economic Model with an Endogenous Government Sector', *Public Choice*, 1978 (forthcoming).

three countries considered that governments are well aware of the effect of economic policy measures on their popularity, and that they do indeed use economic policy instruments in order to secure re-election. The multiple regression technique used allows us to separate this politically motivated activity from other influences such as the need to balance the budget or to keep within the limits set by the balance of payments. This approach also allows us to isolate those periods in which the party in government is actively concerned with re-election. The estimated results for all countries (for the same time periods as in Table 2) suggest that, *ceteris paribus*, governments pursue an expansionary policy before elections when they are afraid that they will not be re-elected. The expansion undertaken will be all the larger the more re-election seems to be threatened and the closer the election day approaches. Governments actively produce in this case a politically motivated business cycle.

V. EVALUATION

Politico-economic models and their polito-metric estimation provide a basis for believing that governments have an interest in creating political business cycles. Traditional business cycle literature and textbooks have completely disregarded this aspect and the theory of stabilisation policy has assumed as a matter of course that the government should, and actually does, stabilise the economy. The economic theory of politics thus provides a quite distinct and new view of business cycles.

What can be done to prevent or at least reduce political business cycles? Clearly, there is little use in advising the government not to create such cycles because government is an *endogenous* part of the politico-economic system. It is not willing and/or not capable of following such advice if the creation of business cycles is to its advantage. There seem to be only two solutions possible:

(i) At the level of the 'constitution', a contract [9] can be entered into which makes it impossible or unattractive for governments to produce political business cycles. One such arrangement would be to lengthen the electoral period, in which case political cycles would disappear altogether or at least be dampened. Another possibility would be to take economic policy out of the hands of politicians and

give it to 'non-partisan' institutions such as the central bank or the planning board. Such an idea is behind the monetarists' proposition that the central bank's activity should be restricted to increasing the stock of money by a constant amount each year. It remains doubtful whether this institutional arrangement would solve the problem; it is rather likely that new forms of business cycles (or other inefficiencies) would be produced, although now for administrative or bureaucratic purposes. It is clear that both lengthening the electoral period and establishing institutions outside democratic control (in the post-constitutional state) have the major disadvantage that the economic policies undertaken may be remote from voters' preferences. The political economist's task is to suggest other, possibly innovative, solutions for constitutional contracts both guaranteeing voter sovereignty and preventing politically induced economic fluctuations. An example would be Professor F. A. Hayek's proposal for the private and competitive supply of money (whose advantages and disadvantages would, of course, have to be carefully considered) [10].

(ii) Voters may be educated by a process of 'social learning'. They can start realising that the government produces cycles in order to improve its re-election chances. Once this is understood, the electorate will punish governments behaving in this way, which will in turn make it unattractive for politicians to follow this route. It may be shown that when voters fully recognise the functioning of the particular politico-economic system they live in—i.e. when voters' expectations are 'rational'—the political business cycle (of the type referred to in Section II of this paper) breaks down.

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