

Political Institutions, Public Policy and Economic Growth

Jan-Erik Lane & Svante Ersson, University of Umeå

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Introduction

There has been for some years now an increased interest in the interaction between politics and economics. The rapidly expanding literature on the popularity function as well as the politico-business cycle are perhaps the most conspicuous manifestations of this kind. But the theme of the *Rise And Decline of Nations* (RADON) by Mancur Olson (1982) belongs to the very same type of argument. Equating the rise and decline of nations with their growth rates in the overall economy, Olson ventures to state that the institutional fabric of society is a missing link in traditional theories explaining economic growth. Olson argues that a crucial factor in explaining the rise and decline of nations such as the United Kingdom, the Federal Republic of Germany, France, Sweden, Switzerland and Japan is a politically very relevant factor, viz. the structure of pressure groups at various levels of government. These so-called distributional coalitions reduce economic growth by pushing for their special interests, thus bringing about national decline. The wealth of nations is not only a function of economic variables but also of the nature of the political authority structure. What is the relationship between political institutions and economic growth?

Politics and Economic Growth

It is hardly astonishing that politics is mentioned as a potentially relevant explanatory factor when accounting for the variation in growth rates. Economic theory has concentrated on variables like labor, capital and technology (Hahn & Matthews 1964, Ott, Ott & Yoo 1975) which, it seems, may be influenced by political decision-making. Thus, the supply of labor may be augmented by

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Politics and Economic Growth

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policies that promote immigration, the availability of capital may depend on taxation rules and technological advance may be stimulated by R&D policies. Two different types of models may be suggested in order to take the interaction between politics and economic growth in account. Politics may be singled out as a factor which, in addition to the traditional economic variables, conditions growth rates, or politics may be modelled as a determinant of growth rates *by means of* its impact on the standard economic variables. Politics may explain what is left to explain after considering economic factors, or politics may be conceived as a determinant of these very same economic variables. The theme in RADON singles out one kind of political factor, political institutions, and the argument is that the structure of these institutions matters very much for economic development. Thus, the RADON argument is reminiscent of the current emphasis on *institutionalism* (March & Olsen 1984). The more segmented the political structure in terms of the size and strength of distributional coalitions, the less the economic advance. What matters is not primarily political decision-making, because it is the overall structure of pressure groups in relation to state authority that determines growth rates. This explains the *country* variation in growth rates, at least among the rich countries with a mixed economy.

The RADON argument is an attempt to employ the idea of a conflict or trade-off between efficiency and redistribution to explain the variation in growth rates at the national level. Following the argument in his *Logic of Collective Action*, LCA, Olson (1969) advances a theory consisting of nine theoretical hypotheses focussing on the conflict between overall economic efficiency and growth on the one hand and the interests of distributional coalitions on the other. The nine theoretical propositions are all derived from the argument of the LCA that economic growth is a public good which it is not rational to provide once a group of actors is large. Only small groups will provide collective interests of which public goods is simply one type, because in small groups it is possible to overcome the basic difficulties in public goods provision, the free rider problem and the preference revelation problem.

Special interest groups pursue certain kinds of collective interests. What, then, is a collective interest? The basic idea in LCA as well as in RADON is that a collective interest is the same as a public good according to the public finance interpretation. Following on from the identification of a public good as non-excludability and jointness as well as the theory that a collective interest is a public good, for a group the basic Olson model states the minimum condition for the provision of any collective interest:

$$(1) F_i \cdot (dV_g/dT) = dC/dT$$

where F_i is the share of the individual i , V is the gain of the group g from the provision of a certain level T of the collective interest and C is the cost for

the provision. We could safely predict that collective good will be provided as long as at least the benefit of one individual is larger than the cost of the good.

The Olson equation can be related to a theory about the optimal size of groups in relation to the provision of collective interests. The occurrence of the free rider phenomenon depends upon the possibility to determine the willingness to pay for a collective good (W), which is a function of the size of the group (N). We could have a willingness to a pay function in rank order

$$(2) \quad W(N) = W_0 \cdot N^{-a}$$

Equation (2) means that the individual who is willing to pay the most for the public good ($N = 1$) is willing to pay W_0 , the next individual ($N = 2$) is willing to pay $W_0 \cdot 2^{-a}$, etc. in decreasing willingness to pay. Then, we have a total or integrated willingness to pay function

$$(3) \quad \int_0^N W(N)dN = \frac{W_0 \cdot N^{1-a}}{(1-a)}$$

i.e. with a finite number of individuals the total willingness to pay function is, of course, the sum total of all individuals' willingness to pay. However, for simplicity we assume continuity. The cost of providing the good to a group of size N might be modeled as

$$(4) \quad C(N) = b_0 + b_1 \cdot N$$

which amounts to the most simple model having the property of decreasing cost per member of the group. Maximizing net benefits for the group means total willingness to pay minus total costs, i.e.

$$(5) \quad \max \frac{W_0 \cdot N^{1-a}}{(1-a)} - (b_0 + b_1 \cdot N)$$

First order condition for maximum yields:

$$(6) \quad W_0 \cdot N^{-a} - b_1 = 0 \quad \Leftrightarrow \quad N = \left(\frac{b_1}{W_0} \right)^{-\frac{1}{a}} = N^*$$

and since a is greater than zero it is obvious that the second order condition for maximum is fulfilled. N^* is the optimal size of the collective, b_1 is marginal cost and $W(0)$ is the highest willingness to pay recorded. This implies that the optimal size of the collectivity grows with a fall in marginal cost and increases with the individual willingness to pay. Furthermore, the more gently the willingness to

pay curve falls, the larger the collectivity. But the larger the group the more rational it becomes to restrict the willingness to pay. Thus, there will be an under-supply of collective interests that concern large groups, i.e. economic growth. It is in the interest of each individual to misrepresent his/her willingness to pay in order to become a free rider. Thus, the public good will only be provided voluntarily if:

$$(7) \quad W_0 > b_0 + b_1$$

Empirical Evidence

Although RADON has stimulated several attempts at testing the theory empirically it is difficult to make an overall assessment of the empirical evaluation. It has been argued that the theory has met with empirical corroboration, but also that there are severe counter-instances (Mueller 1983, *International Studies Quarterly* 1983). Moreover, it has also been claimed that the theory is very difficult to test, and what is even worse, that it is framed in such a way that it cannot be refuted. By adding ad hoc hypotheses the RADON argument could always be saved. It must be readily admitted that there is no straight forward way of testing the nine hypotheses comprising the core of the argument. Firstly, it is far from clear how some of the concepts are to be measured or observed: What is a distributional coalition? How do we assess the influence and position of such an entity? What are the indicators on encompassing collective interests? Secondly, since economic growth is presumably affected by other factors than the structure of distributional coalitions, how can we devise a model that captures the interaction between all the relevant variables allowing us to state the true partial impact of the institutional structure on economic development? The abstract nature of RADON makes an empirical test of the theory a delicate business. Various tests may be devised, but it is far from clear what their import is.

What could we reasonably expect if the RADON argument is true? Since it is possible to measure the variation in growth rates among the OECD nations for the post-World War Two period, these data could be employed to test the Olson theory. We would expect to find that if there is a country variation in economic growth, then some measure of the status and position of distributional coalitions would explain at least some of this variation. If, on the other hand, there is no such country variation in growth rates or if political institutions matter very little, then we would be inclined to question the theory.

Looking at the period between 1960 and 1983 the data about growth rates indicate that there is not only a country variation but also a variation over time. Given the emphasis of RADON on the country differences to be explained by political institutionalism we would expect to find that economic growth rates

Table 1. Analysis of Variance of GDP-Growth Rates 1961-1983 by Country and Time

		GDP-Growth
Country (K = 24)		.12 (.00)
Year (K = 23)		.35 (.00)

Note: The eta-squared coefficient has been estimated on a data set for the OCED nations where the number of cases = $24 \times 23 = 552$. The larger the value of the coefficient - between 0 and 1 - the more variation is accounted for by the variable.

differ more between nations than within nations over time. A simple analysis of variance may be employed to test this implication of RADON. As Table 1 shows, the test is negative: it is not the case that the yearly growth rates are more determined by country than by time, meaning that the over time variation is much more pronounced than the between nation differences.

It is worth emphasizing that the within nation differences are far larger than the between nation differences when it is a matter of the *yearly variation* in

Table 2. Average Growth Rates in the OECD Nations: 1961-1970, 1971-1983, 1961-1983 (real GDP), 1960-1981 (real GDP/capita). In percent

	Real GDP 1961-83	Real GDP/capita 1960-81	Real GDP 1961-70	Real GDP 1971-83
Australia	3.9	2.5	5.2	2.9
Austria	3.8	3.7	4.8	3.1
Belgium	3.6	3.4	5.0	2.5
Canada	4.2	3.1	5.2	3.4
Denmark	3.2	2.7	4.6	2.2
F R Germany	3.2	3.0	4.6	2.2
Finland	4.0	3.7	5.0	3.3
France	4.0	3.6	5.6	2.8
Greece	5.4	5.0	7.7	3.7
Iceland	4.1	3.3	4.5	3.7
Ireland	4.1	3.1	4.3	3.9
Italy	3.8	3.5	5.7	2.3
Japan	7.2	6.4	10.7	4.6
Luxembourg	2.7	2.3	3.5	2.0
Netherlands	3.4	2.7	5.2	2.1
New Zealand	2.8	1.6	3.7	2.0
Norway	4.2	3.6	4.4	4.1
Portugal	5.1	4.9	6.4	4.1
Spain	5.0	4.2	7.4	3.2
Sweden	3.0	2.6	4.7	1.7
Switzerland	2.7	2.1	4.8	1.1
Turkey	5.6	2.9	5.7	5.5
United Kingdom	2.2	1.8	2.8	1.8
United States	3.2	2.2	3.9	2.6

Note: Real GDP rates are based on OECD Economic Outlook, nos 36 (1984) and 25 (1979); real GDP/capita growth rates are based on OCED Historical Statistics 1960-1981 (1983).

growth rates. This finding is a warning against any theory that focuses on country as a crucial determinant of economic development. Since the structure of political institutions does not change radically from one year to another, the implication of the finding reported on in Table 1 is clearly that the RADON argument cannot explain that part of the variation in economic growth or decline that is short-run. How about the long-run variation?

Even if the rate of economic growth hovers from one year to another – which cannot be accounted for by the structure of political institutions but perhaps by political decision-making – it may still be the case that the average variation in growth rates displays a clear country identification. Table 2 shows various measures on the *long-run variation* in economic development.

Bypassing the substantial yearly variations in growth rates, it is possible to identify a stable variation over time. Considering the first time period (1961-70), the average growth rate varies between 10.7% (Japan) and 2.8% (United Kingdom). The country variation is not as extensive during the second time period, as the difference between the maximum (Turkey = 5.5%) and the minimum (Switzerland = 1.1%) has gone down. It must be emphasized that the structure of the country variation is only partly the same during the two time periods, as the correlation coefficient indicates ($r = .52$). This is again a warning against the attempt to identify a stable country variation during the post-War period. There is simply too much variation even between average growth rates over time. However, allowing for the substantial time variation, we may single out four sets of nations that differ in the average growth rate between 1961-1983:

- (1) below 3.3%: Denmark, F R Germany, Luxembourg, New Zealand, Sweden, Switzerland, United Kingdom and United States;
- (2) 3.3.-3.9%: Australia, Austria, Belgium, Italy, Netherlands;
- (3) 4.0-4.9%: Canada, Finland, France, Iceland, Ireland and Norway;
- (4) over 5.0%: Greece, Japan, Portugal, Spain and Turkey.

How are we to account for this pattern of variation in average growth rates? Let us test a number of models that attempt to account for the long-run variation in economic growth. We will restrict our models by including politically relevant variables in order to search for evidence that politics matter. While in no way suggesting models that would compete with the standard economic growth models, we ask if there is any evidence for the theory that political institutions have an impact on the average growth levels in advanced capitalist democracies.

Model Estimation

Let us specify a data set including a number of indicators tapping some latent variables to be measured across the OECD nations during the post-World War Two period, particularly since 1960. The data comprise:

- (1) *Rise and decline of nations*: various indicators measuring economic performance like average growth rates for various periods of time in overall GDP and GDP per capita, allowing for the fact that the quality of the data is not always the same (OECD 1979, 1983, 1984).
- (2) *Wealth of nations*: the level of economic output as a starting point in e.g. 1957, measured by GNP per capita (Russett et al. 1964).
- (3) *Economic maturity*: it may be argued that high rates of economic growth should be found in economies with a rapidly expanding secondary sector, whereas the coming of a tertiary sector would mean a slow down in economic growth. The explanation for this hypothesis is that the potential for productivity increases is far less in the tertiary sector. Thus, we include a measure of the size of the tertiary sector (OECD: Historical Statistics).
- (4) *Institutionalization*: an index developed by Choi which taps the length of the period that a nation has had a political structure intact (Choi 1983). The index has been extended to all OECD nations by additional estimates. It may be complemented by another measure of the age of a nation: a modernization index (Taylor & Hudson 1972).
- (5) *Structure of interest groups*: it is not easy to measure the structure of pressure groups nor to come up with some index that expresses valid generalizations about each and every pressure group. We will focus on the structure of the trade unions: a unionization index (Therborn 1984, Kjellberg 1983, Miele 1983, Korpi 1983) and a centralization index (Heady 1970).
- (6) *Corporatist interest mediation*: if trade union structure is not the only dimension in the nature of distributional coalitions, then perhaps the access of pressure groups to political power matters. Corporatist avenues to national decision-making may result in encompassing decision-making: two corporatization indices (Schmitter 1981, Wilensky 1976).
- (7) *Consociationalism*: broad social decision-making would be conducive to encompassing social solutions. Thus we include some indicators that measure the amount of political competition in the composition of government: a consociationalism index (Lijphart 1979) and an index of oversized cabinets (Lijphart 1984).
- (8) *Party government*: it seems natural to take the colour of government into account when looking at the trade-off between economic growth and redistribution. Presumably, a socialist government favors redistribution whereas non-socialist governments emphasize economic growth. We measure the composition of governments in the following way: an index of socialist and bourgeois dominance (Schmidt 1983); government durability (Lijphart 1984).
- (9) *Public policy*: pondering about the interaction between politics and economic growth one cannot bypass the impact of public policies in a long-run perspective. Since the dependent variable is the average growth rates we

test some hypotheses about the effect of long-run public policies. Thus, we include measures of the size of the public sector since 1960: total outlays, transfer payments and final government consumption (OCED: Historical Statistics).

In modeling the relationship between institutional variables and average economic growth, some theoretical guidelines may be suggested. We may single out economic performance as the dependent variable but employ three different indicators: real GDP growth 1961-1970, real GDP growth 1971-1983 and real GDP/capita growth 1960-1981. The substantial over time variation means that the estimates may vary depending on which indicator is used. It is reasonable to expect that the level of economic performance has an impact upon the rate of economic growth. The lower the starting point, the higher the rate of change if there is a process of economic growth. Political variables may have an impact upon economic performance over and above that of the level of economic performance. We will test the contribution of each institutional variable in a regression equation comprising, besides the wealth of nations, the particular institutional variable in question. A similar stepwise procedure will be used in relation to the other political variables, mainly various indicators on the size of the public sector.

Wealth of Nations

It is not quite clear how a certain level of economic performance relates to the rate of change in economic performance. One may argue that countries at a low level tend to display a low level of economic growth, as they are stuck in poor economic performance. The implication is that rich countries would tend to become even richer at a more rapid rate. Simon Kuznets argues along this line in his study of economic growth in a historical perspective (Kuznets 1972). However, the opposite argument seems more plausible in relation to countries that have already reached a certain level of economic performance, as is true of the OECD-countries. Here one would expect a negative relationship meaning that countries at a lower level of economic output tend to grow more rapidly than countries with a more mature economy. In order to test these two alternative hypotheses, a simple regression was run with economic level in 1957 predicting various measures of economic growth (Table 3).

Table 3. Economic level and Growth Rates

	Coefficient	t-stat	Beta Wt	R ²	R ² A
(1) GDP growth 1961-70	= -.0016 GNP/cap. 1957	-3.16	-.56	.31	.28
(2) GDP growth 1971-83	= -.0010 GNP/cap. 1957	-2.95	-.53	.28	.25
(3) GNP/cap. growth 1960-81	= -.0012 GNP/cap. 1957	-3.87	-.64	.40	.38

It appears that the second hypothesis is the correct one for the OECD nations as there is a considerable connection between economic performance and rates of change in the direction suggested by this second hypothesis. A substantial portion of the variation in growth rates in the sixties and the seventies may be accounted for by the level of economic performance. The high growth rates are to be found among nations at a low level of economic performance: Japan, Greece, Portugal, Spain and Turkey. However, this is hardly a complete explanation as even the best model explains less than half of the variation. Thus, a basic economic variable like the level of economic output is clearly relevant to the explanation of growth rates, but what is the contribution of institutional variables? We now add each of these structural variables listed above to the simple model relating economic growth to economic level.

Institutionalization

The basic hypothesis in RADON states that the length of the time of institutionalization has a negative impact on growth rates. How is institutionalization to be measured? The concept of institutionalization is fairly similar to modernization as both refer to the emergence of a more or less constitutionally defined polity based on an industrial economy involving considerable portions of the citizens in political life. What matters in the concept of institutionalization according to the Olson interpretation is the length in time of *unbroken* institutionalization. Thus the occurrence of major societal disaster abolishing established institutions is of crucial importance in this variable. An index of institutionalization or institutional sclerosis has been developed by Choi in a test of the RADON argument. It is fairly similar to a modernization measure identifying the years of consolidating modernizing leadership. The correlation between the two measures is high, $r = -.75$. Actually, the Choi index includes the standard modernization measure. Institutionalization may have an impact on economic growth either directly or in terms of its impact on level of economic performance. Since institutionalization refers to an extended period of time it may have an impact on both level and rate of change in economic performance. We will test a model comprising both institutional sclerosis and economic level.

Table 4. Institutionalization, Economic Level and Growth Rates

	Coefficient	t-stat	Beta Wt	R ²	R ² A
(1) GDP growth 1961-70	= -.0001 GNP/cap. 1957	-.14	-.04	.45	.40
	-.0570 Institutional.	-2.33	-.64		
(2) GDP growth 1971-83	= .0002 GNP/cap. 1957	.47	.12	.51	.46
	-.0466 Institutional.	-3.09	-.81		
(3) GPD/cap growth 1960-81	= -.0004 GNP/cap. 1957	-.83	-.22	.50	.45
	-.0309 Institutional.	-1.94	-.51		

Table 5. Economic Maturity, Institutionalization, Economic Level and Growth Rates

	Coefficient	t-stat	Beta Wt	R ²	R ² A
(1) GDP growth 1961-70 =	-.0007 GNP/cap. 1957	-.93	-.26	.54	.47
	-.0762 Institutional.	-3.04	-.86		
	.0878 Service sector	1.93	.51		
(2) GDP growth 1971-83 =	.0003 GNP/cap. 1957	.57	.16	.51	.44
	-.0440 Institutional.	-2.62	-.76		
	-.0107 Service sector	-.39	-.10		
(3) GDP/cap. growth 1960-81 =	-.0009 GNP/cap. 1957	-1.72	-.46	.59	.53
	-.0457 Institutional.	-2.84	-.76		
	.0635 Service sector	2.20	.56		

A model that includes institutionalization in addition to economic performance gives better explanations than a simple economic equation. And the parameter estimates indicate that institutionalization is more important than economic level. Table 4 indicates a positive corroboration of the basic argument in RADON: institutions matter in relation to the rise and decline of nations. The goodness of fit of the model must be characterized as substantial. It may be argued that institutionalization merely measures another economic dimension, viz. the economic maturity of the economy. Testing a model including an index of economic maturity – size of the third sector – does not change the findings (Table 5).

Unionization

Although the argument in RADON concerns all kinds of distributional coalitions, it is possible to test some implications concerning the impact of trade unions on economic growth. It is often believed that the mere existence of trade unions has a negative impact on economic growth. Olson adheres to this standard assumption but qualifies it by adding the reverse hypothesis that encompassing trade unions promote economic growth. What is the relationship between trade unionization and economic growth in advanced capitalist societies? We will test a model that predicts economic growth by means of trade union organization besides the general level of economic performance.

It appears that the contribution of trade union organization to economic growth is slight when the level of economic performance is taken into account. Although there is an overall negative relationship between trade unionization and economic growth as well as an overall positive relationship between trade union centralization and economic growth, these partial relations are not very strong. The argument about distributional coalitions implies that the relationship between trade union density and economic growth constitutes a U-shaped curve. Testing this implication for various time periods, we may establish that there is little confirmation of this hypothesis except for the sixties, if the analysis

Table 6. Unionization, Institutionalization, Economic Level and Growth Rates

	Coefficient	t-stat	Beta Wt	R ²	R ² A
(1) GDP growth 1961-70 (N = 24)	= -.0002 GNP/cap. 1957 -.0544 Institutional. -.0063 Union 1960's	-.25 -2.11 -.41	-.07 -.61 -0.7	.46	.38
(2) GDP growth 1971-83 (N = 24)	= .0002 GNP/cap. 1957 -.0458 Institutional. -.0020 Union 1970's	.42 -2.90 -.22	.11 -.79 -.04	.51	.44
(3) GDP/cap growth 1960-81 (N = 24)	= -.0005 GNP/cap. 1957 -.0273 Institutional. -.0091 Unions 1970's	-.97 -1.67 -.99	-.26 -.45 -.16	.52	.45
(4) GDP growth 1961-70 (N = 13)	= .0001 GNP/cap. 1957 -.0323 Institutional. .0016 Union centraliz.	.16 -2.22 .93	.05 -.69 .22	.52	.36
(5) GDP growth 1971-83 (N = 13)	= .0003 GNP/cap. 1057 -.0305 Institutional. .0116 Union centraliz.	.57 -1.71 .06	.22 -.65 .02	.28	.04
(6) GDP/cap growth 1960-81 (N = 13)	= .0000 GNP/cap -.0313 Institutional. .0104 Union centraliz.	.08 -3.73 1.46	.02 -.82 .24	.76	.68

Note: Two indices are employed to tap trade union organization (membership) as well as centralization (influence). The two indices do not coincide and the selection of different points of time for the measurement of the variable results in alternative estimates of the impact of the variable depending on the number of cases involved.

also includes Spain and Portugal with their high unionization within an authoritarian state system. It could be the case that trade union organization has a clearer negative impact on economic growth, but that its partial impact will only be revealed in more complex models.

Other Institutional Factors

It has been argued that trade union strength is only one institutional factor that is of crucial importance in a politico-economic perspective. Thus, we find in the literature a number of hypotheses about the implications of corporatism, consociationalism and the type of party government (Castles 1982, Wildavsky 1985). The question we pose is if these factors are equally valid for predicting the variation in growth rates. Thus, we test a number of models predicting various measures of economic growth by means of economic level plus one institutional factor at a time. Table 7 reports only a few of these models, viz. the models with the best goodness of fit.

The finding is that adding other institutional factors like corporatism, consociationalism or type of party government results in very minor changes in the basic explanatory power of the economic variable. It is clearly the case that

Table 7. Institutional Factors, Institutionalization, Economic Level and Growth Rates

	Coefficient	t-stat	Beta Wt	R ²	R ² A
(1) GDP growth 1961-70 (N = 20)	= -.0004 GNP/cap. 1957 -.0503 Institutional. -.6187 Socialist domin.	-.50 -1.91 -2.02	-.14 -.52 -.38	.52	.43
(2) GDP growth 1971-83 (N = 20)	= .0002 GNP/cap. 1957 -.0397 Institutional. -.1075 Socialist domin.	.41 -2.28 -.53	.13 -.70 -.11	.39	.27
(3) GDP/cap growth 1960-81 (N = 20)	= -.0002 GNP/cap. 1957 -.0431 Institutional. -.1478 Socialist domin.	-.42 -2.68 -.79	-.11 -.67 -.14	.59	.51
(4) GDP growth 1971-83 (N = 19)	= -.0002 GNP/cap. 1957 -.0368 Institutional. -.0129 Oversized cab.	-.19 -2.30 -2.14	-.05 -.60 -.38	.54	.44

economic level matters more for growth rates than these institutional variables. It may be pointed out that corporatist institutions may benefit economic growth, whereas socialist dominance in party governments tends to have the opposite effect as predicted in the standard assumption about socialist governments favoring redistribution. However, it is hardly possible to corroborate any strong hypothesis about the contribution of these institutional factors to economic growth.

Public Policy Variables

According to mainstream economic theory an increase in public expenditure has two opposite consequences for economic growth. Whereas spending on collective and semi-collective goods would be conducive to economic growth adding to the infra-structure of society, an increase in transfer payments would have a negative impact favoring distribution ahead of growth. Maybe the variation between the OECD countries in terms of average growth rates could be accounted for by means of the variation in basic public sector dimensions: total outlays, final government consumption, and social transfer payments. We test three models predicting economic growth by a combination of economic, institutional and policy variables.

The finding is that political institutions matter more for economic growth rates than the overall structure of public policy. Adding various indicators on the size of the public sector does not change the finding that institutional sclerosis is the best single predictor of average economic growth. The relationships between various policy dimensions and economic growth are hardly strong, but the direction of the interaction is negative. A large public sector is hardly conducive to economic growth.

Table 8. Public Policy, Institutionalization, Economic Level and Growth Rates

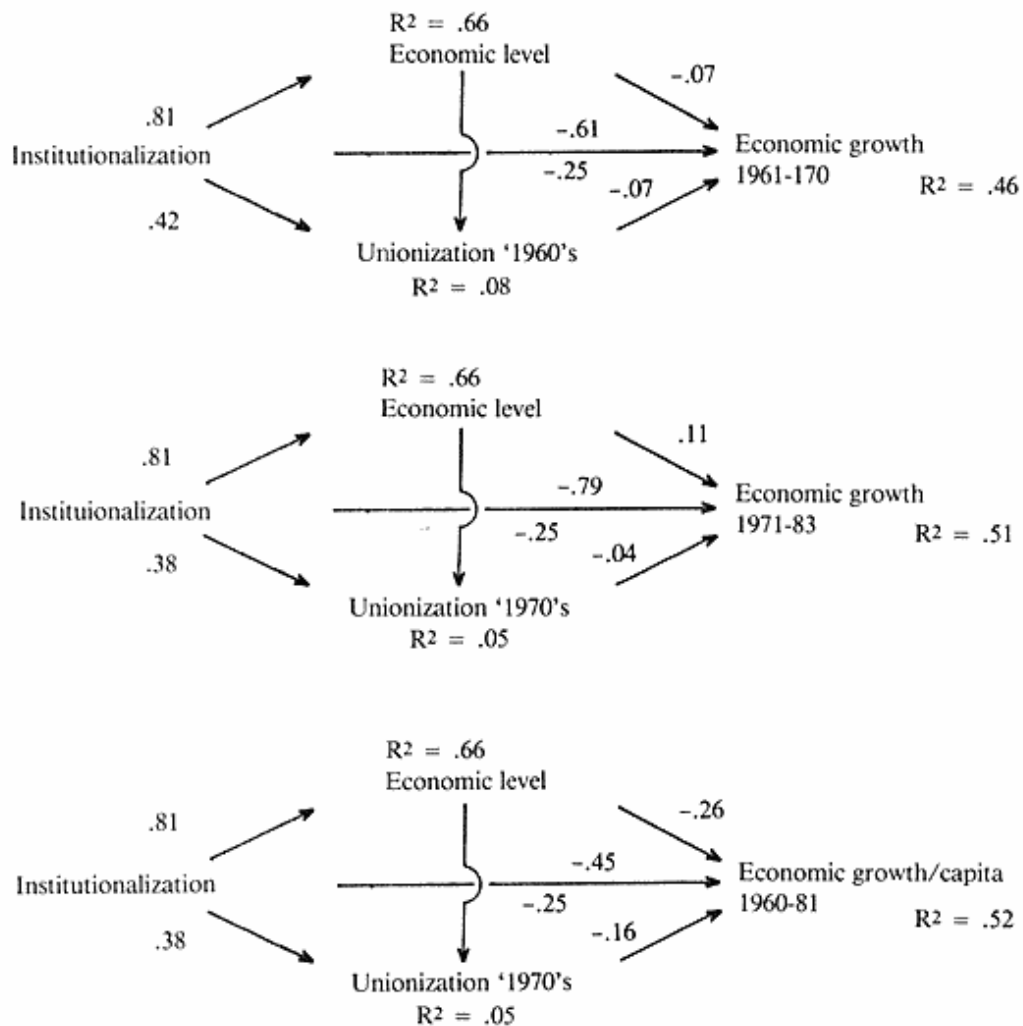
	Coefficient	t-stat	Beta Wt	R ²	R ² A
(1) GDP growth 1961-70	= -.0000 GNP/cap. 1957	-.00	-.01	.48	.41
	-.0467 Institutional.	-1.79	-.53		
	-.1279 Gov. Fin. Cons.	-1.07	-.22		
(2) GDP growth 1971-83	= .0002 GNP/cap. 1957	.46	.12	.51	.44
	-.0469 Institutional.	-2.86	-.81		
	.0025 Gov. Fin. Cons.	.05	.01		
(3) GDP/cap growth 1960-81	= -.0004 GNP/cap. 1957	-.79	-.21	.50	.42
	-.0286 Institutional.	-1.65	-.47		
	-.0247 Gov. Fin. Cons.	-.39	-.08		
(4) GDP growth 1961-70	= -.0002 GNP/cap. 1957	-.24	-.07	.46	.38
	-.0527 Institutional.	-1.98	-.59		
	-.0295 Social Sec. Trans.	-.47	-.08		
(5) GDP growth 1971-83	= .0001 GNP/cap. 1957	.19	.05	.61	.55
	-.0359 Institutional.	-2.46	-.62		
	-.0660 Social Sec. Trans.	-2.24	-.34		
(6) GDP/cap growth 1960-81	= -.0004 GNP/cap. 1957	-.79	-.22	.50	.42
	-.0312 Institutional.	-1.79	-.52		
	.0015 Social Sec. Trans.	.04	.01		
(7) GDP growth 1961-70	= -.0003 GNP/cap. 1957	-.37	-.10	.54	.47
	-.0378 Institutional.	-1.52	-.43		
	-.0880 Total Outlays	-1.98	-.35		
(8) GDP growth 1971-83	= .0001 GNP/cap. 1957	.21	.05	.54	.47
	-.0378 Institutional.	-2.28	-.66		
	-.0220 Total Outlays	-1.22	-.22		
(9) GDP/cap growth 1960-81	= -.0004 GNP/cap. 1957	-.86	-.24	.50	.42
	-.0284 Institutional.	-1.56	-.47		
	-.0082 Total Outlays	-.32	-.06		

Note: The public policy variables refer to averages for the following periods: 1960-1967, 1974-1981 and 1960-1981 respectively; some data have been estimated for New Zealand.

Conclusion

Economic growth rates are very important for the development of nations. It may not be the only relevant indicator on the rise or decline of nations but its crucial position in determining the fate of nations cannot be doubted. What determines economic growth? Looking beyond economic theory and the standard growth models we may search in less certain domains for the non-economic factors that condition economic development. The Mancur Olson hypothesis about the impact of social and political institutionalization is a step in this new direction of the research into the interaction between politics and economics. Testing some of the implications of the argument in RADON we find that the length of time of institutionalization matters much for the under-

Figure 1. Path Analysis



standing of the variation in national growth rates in the post-War period. We have not been able to corroborate any more specific hypothesis as regards the impact of certain structural variables on economic growth. However, taking into account the interaction between the various factors tested in different models, it seems possible to arrive at a pattern. Fig. 1 presents a path modeling of the crucial variables derived from the regression analysis.

In a model that combines several institutional factors, the finding is that a considerable portion of the country variation in economic development may be accounted for. It appears that if the extent of institutionalization is chosen as the basic variable, then an interpretable pattern shows up. Institutionalization has a strong direct negative impact on economic growth. In addition it influences economic development indirectly by means of its impact on economic level and

unionization. Institutionalization is conducive to a high level of economic performance which in turn has a negative impact on economic growth. Similarly, institutionalization goes together with unionization, which also has a negative impact on economic growth. The relationships between institutionalization and unionization as well as between unionization and economic growth are weak. The interaction as portrayed in the path models is rather stable over time. The model explains somewhat better the first period of time which may depend upon a larger variation in the dependent variable. In particular, the connection between unionization and economic growth is almost non-existent in the last decade.

Without doubt one of the major hypotheses in RADON has met with empirical confirmation. We may still wish to know more about the very composite variable institutional sclerosis in order to test more specific hypotheses about its impact on the rise and decline of nations. Clearly, institutionalization has an impact on economic growth besides its indirect effect via economic performance and unionization. What is institutional sclerosis if neither unionization nor wealth account for this finding? Again, it must be emphasized that there is a substantial time variation in economic growth rates which cannot be accounted for by an institutional model. But looking at the average growth rates determining the rise and decline of nations in a long-term perspective, the Olson analysis must be further developed.

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