

Take the Money and Run: Political Turnover, Rent-Seeking and Economic Growth

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Abstract

Marcus Olson's (1982a) argues that differences in growth rates can be explained by differences in the degree of entrenchment of interest groups. The more stable the political system or ruling regime, the larger the amount growth decreasing transfers. We test the Olson hypothesis using a panel of U.S. states and argue for a positive link between political stability and growth. At the margin, since policymakers decide between policies that serve special vs. general (growth enhancing) interests, the payoffs to focusing on the later will be a greater in regimes with higher expected durability. Using four different measures of political instability we consistently find a significant negative relationship between it and U.S. state economic growth. We interpret this result as illustrating the positive relationship between rent-seeking and political *instability*.

1. Introduction

In a series of seminal studies Mancur Olson (1982a, 1982b, 1984) has stressed the important role of institutional and political factors in explaining differences in rates of economic growth. His argument rests on the activities of pressure groups that seek to enhance the interests of its members and the behavior of governments that serve the interests of its constituents. One way to achieve member goals is to demand public goods that make the economy more productive (Olson's "encompassing interest").¹ An alternative path for politically powerful groups is to lobby for redistributive over efficiency enhancing policies. Since these redistributive policies impose social costs and reduce overall economic efficiency, Olson (1982a) describes democratic nations that succumb to such pressures as suffering from "institutional sclerosis." According to Olson (1982a) *political stability* leads to the growth of redistributive or rent-seeking (Olson (1965) & Buchanan, Tollison, & Tullock, 1980) coalitions and thus a decline in aggregate growth rates.

Many previous tests of the Olson hypothesis have used international data on comparative growth rates (i.e. Mueller (1983) & Landau (1985)) and have largely been incorporated into the literature on democracy and growth (i.e. Barro (1991), Levine & Renelt (1992) and Barro (1996)).

¹ An encompassing interest group is one whose membership is large and, because of its size, cannot pursue redistributive policies without regard to their effect on economic efficiency.

Olson (1982a, p.94-117) and Choi (1983) have also tested this thesis using U.S. state data. The underlying basis for these tests is explained by Olson (1982a, p.77):

“The logic of the argument implies that countries (or states) that have had democratic freedom of organization without upheaval or invasion the longest will suffer the most from growth repressing organizations and combinations.”

Olson (1982a) obtains results that support his theory for the U.S. states due to the statistically negative relationship between time since admission to the union (or since the Civil War for southern states) and economic growth rates. Choi (1983) also supports the theory using cross-sectional regressions of growth on a logistic measure of the sum of the number of years since state political consolidation.

Opposing evidence is found by Nardinelli, Wallace, & Warner (1987) who show that state age either has an insignificant or positive and significant effect on state economic growth when imbedded in a more richly specified model. This leads them to conclude that the Olson hypothesis is dominated by the “catching up hypothesis.” In contrast, Vedder and Gallaway (1986), using a different specification, find a negative and significant relationship between age and state growth rates. Gray and Lowery (1988) criticize this entire strand of the literature by arguing strongly and convincingly against the use of the coefficient of state age to test the Olson hypothesis. The basis for his complaint is that the age or time variable used in those studies are weak proxies incapable of capturing the political and interest group dynamics which it purports to measure.

This paper tests the Olson hypothesis on growth using a balanced panel of U.S. state per capita income² by employing a different statistical methodology and model specification than those used in prior studies. We argue that the major advantage of our state level data is that it allows us to construct *direct measures* of rent seeking coalitions and political instability while imbedding our analysis in a homogeneous institutional (democratic) and legal framework. Although many of our findings are consistent with the growth literature in general as well as Olson's (1982a) basic rent-seeking thesis in particular, we consistently find that state political instability (measured as the average turnover rate of the party of the Governor) is associated with significantly *lower* rates of state economic growth. We suggest that this is, in fact, consistent with Olson (1982a) since there is a strong theoretical and empirical basis for positing a positive relationship between political regime instability and rent seeking activity. Our thesis is that the negative effect of state political instability on growth is consistent with Olson's insight with respect to the growth retarding affect of rent-seeking behavior.

2. Empirical Framework

We use panel data for the 50 U.S. states for each year between 1975 and 2005 to investigate the role of political and institutional forces in determining economic growth rates. Our dependent variable is the five year average rate of state per capita real income growth. Following Barro (1991) and Barro & Sala-i-Martin (1992) we test for conditional convergence in state growth rates. What

² See, Quiggin (1992) for a discussion regarding why per-capita income is the most appropriate variable to use to test the Olson theory.

differentiates our model from that literature is that we include the level of real per-capita income lagged 5 years for each state rather than simply the initial level of state per-capita income at the start of the sample. This specification better deals with Friedman's (1992) criticism of standard cross-national tests of the convergence hypothesis as committing the "regression fallacy". Our model is less subject to that criticism since the lagged level of real per capita income is "updated" for each year of our sample.

Our measure of political instability is the previous 5 year average turnover rate in the party of the state's Governor. If the same party retained power for each of the 5 years, the value of our political change variable is equal zero. If there was one switch within the 5 year period the value of would be 20. The mean of our political variable is 10.18 (standard deviation = 11.64). We have also calculated turnover rates for seven, ten and fifteen year intervals with similar mean values, 10.14, 10.15, & 10.16, but declining standard deviations, 9.62, 8.04 & 6.56 for the 7, 10 & 15 year average series, respectively. This measure of political instability follows the cross-national study of Alesina, Ozler, Roubini, & Swagel (1996, p.190) who define it as a "propensity of a change in the executive, either by constitutional or unconstitutional means."

We expect that a less durable government should lead to lower economic growth rates for several reasons: First, a higher likelihood of a change in government is associated with increased uncertainty with respect to tax and/or regulatory policies and thus lower levels of investment. Second, since governments allocate their resources between servicing rent seeking coalitions

and “encompassing” interests; shorter expected regime duration should raise the return of the former and lower that of the later³. That is, governments with a shorter life expectancy should have a higher discount rate and thus shift from long term efficiency enhancing to short term redistributive (rent-seeking) policies.⁴ Third, several political economy models (i.e. Alesina & Tabellini (1990), Tabellini & Alesina (1990), Cukierman, Edwards and Tabellini (1992)) have been developed which show that governments that are uncertain about their survival will engage in suboptimal policies in order to worsen the economy of the successor regime. For all these reasons we postulate (contra Olson (1982a)) that political turnover should lower rates of state economic growth

Further tests of the Olson hypothesis for the United States require a measure of the strength of common interest groups. Fortunately, an excellent database on unions compiled by Hirsch and Macpherson (2003)⁵ allows us to measure what are probably among the most important common interest groups between states. The measure of unionization we employ is the percentage of each state's nonagricultural wage and salary employees who are union members. In our empirical model we use the five year average growth rate in unionization and hypothesize that it should lead to lower rates of economic growth.

³ Poitras and Sutter (2000) develop a 2 period model in which a natural monopoly that chooses a low enough amount of wealth transfer (rent) in period 1 can effectively deter deregulatory efforts by removing the reformer's incentive in period 2. In our context, the incumbent party (monopoly) that holds down / increases the amount of rent-seeking activity has a lower/higher probability of an electoral ouster (reform).

⁴ This second argument fits most closely within the Olson (1982a) framework.

⁵ See, <http://www.trinity.edu/bhirsch/unionstats/>

Following Grier and Tullock (1989) and Barro (1991) we include a measure of government size in our growth regressions. Given the states limited ability to run deficits our preferred measure is a variable we label Tax Burden which is state and local taxes as a percentage of state net national product. This aggregate measure allows for differences in revenue funding sources for state spending. Different taxes such as individual income, sales or property taxes have a different effect on a state's economy but the expected direction of changes in each on growth are identical. For example, higher individual income taxes reduce households' disposable income, lower the returns from working, and therefore reduce the supply of labor whereas higher property taxes reduce disposable income, lower the returns to asset ownership and reduce future investment in taxable property. Papke (1991) demonstrates that state fiscal policies have profound effects on state's economies. He finds that larger state and local tax differentials are associated with lower rates of new firm creation and lower levels of economic growth. We use the five year growth rate in the tax burden in our statistical model to test the hypothesis that it has a negative effect on state per capita income growth.

Lastly, we incorporate a measure of human capital in our growth regressions. While Barro (1991) uses school enrolment rates as proxies for human capital in his cross national studies, we use the % of the state population over 25 that have at least a Bachelor's Degree. We argue that this is a much more relevant measure for a country with mandatory school attendance policies and better allows us to measure cross-state differences in labor force skills. We

expect that higher rates of human capital (education) should be associated with higher rates of income growth.

3. Stationarity

Before proceeding with our estimation we test to see if our dependent variable is stationary by employing a panel unit root test. Panel unit root tests are similar, but not identical, to unit root tests carried out on a single series. The version we employ is from the important paper by Levin, Lin, and Chu (2002).

To illustrate their test consider the following AR (1) process for panel data:

$$(1) \quad y_{it} = \rho_i y_{it-1} + X_{it} \delta_i + \epsilon_{it}$$

where $i = 1, 2, \dots, N$ cross-section units or series, that are observed over periods $t = 1, 2, \dots, T$. The X_{it} represent the exogenous variables in the model, including any fixed effects or individual trends, ρ_i are the autoregressive coefficients, and the errors ϵ_{it} are assumed to be mutually independent idiosyncratic disturbance. If $|\rho_i| < 1$, y_{it} is said to be weakly (trend-) stationary. On the other hand, if $|\rho_i| = 1$ then y_{it} contains a unit root.

Levin, Lin, and Chu (LLC) assume that the persistence parameters are common across cross-sections so that $\rho_i = \rho$ for all i .

The LLC test employs the following basic ADF specification:

$$\Delta y_{it} = \alpha y_{it-1} + \sum_{j=1}^{p_i} \beta_{ij} \Delta y_{it-j} + X'_{it} \delta + \epsilon_{it}$$

where we assume a common $\alpha = \rho - 1$, but allow the lag order for the difference terms, p_i , to vary across cross-sections. The null and alternative hypotheses for the tests may be written as:

$$H_0: \alpha = 0$$

$$H_1: \alpha < 0$$

Under the null hypothesis, there is a unit root, while under the alternative, there is no unit root.

Performing this test on the five year average rate of per capita state income growth we obtain a Levin, Lin & Chu t-statistic of -4.46. This rejects the above null hypothesis at the .0001 level and gives us assurance that our statistical results are not marred by problems associated with non-stationary time series.

4. Results

Equation 1 (table 1) presents the results of our growth model which allows for cross section heterogeneity in the error variance and cross sectional fixed effects. The value of our cross sectional F-statistic (11.17) clearly rejects the null that the cross sectional fixed effect dummies are jointly equal to zero thus supporting the appropriateness of our fixed effects model.

In regards to the estimated coefficients, the negative and very significant coefficient on the five year lagged state per capita income variable supports the convergence hypothesis. That is, states with higher levels of per capita income in t-5 had

on average lower rates of growth during the subsequent 5 years than those states with lower levels of initial income. Although our specification is somewhat different, this finding is broadly consistent with Barro (1991), Barro & Sala-i-Martin (1992) as well as Glaeser, Scheinkman & Shleifer (1995) who find evidence for convergence in a cross section of U.S. cities.

We also detect a positive and statistically significant relationship between the initial level of human capital and subsequent state economic growth. The standardized coefficient for our education variable is equal to 2 which interpreted as a one standard deviation (7%) increase in the fraction of the 25+ population with at least a B.A. leading to a 2 standard deviation (.14%) increase in the state's five year average growth rate holding constant the other variables in the model. This supports Barro's (1991) emphasis on the importance of controlling for the level of human capital in growth regressions.

Evidence of a strongly significant negative relationship between state tax burdens and economic growth is also found. This affirms the basic economic notion that tax increases create disincentives to the taxed activity as well as the influential paper by Rebello (1991) that shows a negative permanent growth effect of taxes in an infinitely lived agent model. These findings correspond with those of Papke (1991) as well as Holcombe and LaCombe's (2004) adjacent county analysis of state income taxes and growth.

Our last two variables discussed relate directly to the Olson (1982a) hypothesis on rent-seeking and economic growth. We find that the growth in union membership has a negative and very significant effect on state economic growth. This supports the standard economic textbook model of the inefficiencies created by union induced job rationing

(above market clearing wages). Since capital is mobile across U.S. states it is also reflects jobs and growth being exported to those regions with more flexible labor market institutions.

Political instability is also found to have a negative and statistically significant impact on growth. While this is found in cross national studies (e.g. Barro (1991) and Alesina et al (1992)) it has not previously been explored with our direct measure of instability and interpreted in terms of the Olson (1982a) hypothesis. Although the impact of political turnover is not quantitatively large (a one standard deviation rise in the five year turnover rate leads to a .03 percent fall in real per capita income growth) it has a non-zero and negative effect even after controlling for a host of other variables. What is clearly rejected, for the U.S. states at least, is the hypothesis that political instability *increases* economic growth.

5. Robustness

Mueller (1982, p.156) has previously noted that U.S. gubernatorial turnover (cycling) seemed to be correlated with slower growth but ruled out a possible causal link arguing “it is unlikely that more frequent changes in the governor’s chair affect the performance of the state economy.” He suggests instead that the slower growth rates lead to added political turnover. While we present arguments against this negative *a priori* view, it is remains true that any study of the effects of political instability on economic growth needs to deal with the possibility of reverse causation.

We deal with this by measuring our political turnover variable in terms of seven, ten and fifteen year averages and check for the robustness of our political instability

coefficient. That is, while a reasonable case can be made that slow economic growth over the previous five years explains greater political turnover within that same period (rather than the link going from instability to growth) the argument that slow growth between $t-5$ and t explains the state's turnover rate between $t-15$ and t is a much more credulous claim since $2/3$ of the 15 year turnover variable is clearly *exogenous* with respect to our five year growth variable.

The results of our robustness tests are presented in equations 2-4 (table 2). Our computed F-statistics support our panel fixed effects model for each of the specified equations. The positive effect of the initial level of human capital on growth remain statistically significant in each of the equations as do the negative effects of initial income, unionization and growth in the tax burden. The negative and statistically significant effect of political turnover on growth remains whether the political variable is measured using seven, ten, or fifteen year averages. The standardized coefficient for the 15 year turnover variable is $-.1$ which means that a one standard deviation rise in it lead to a $-.1$ (or $.07\%$) fall in average state per capita income growth. Hence, not only does the negative effect of political turnover on growth remain robust to the time frame for which political turnover is measured, its quantitative effect is largest for the longest temporal measure.

Table 3 (equation 5) documents the results of the final test of our political turnover- economic growth hypothesis. In it we include both our five and fifteen year average political turnover measure in our econometric specification. This allows us to interpret the coefficient on the 15 year variable as reflecting the impact of prior ten year average gubernatorial turnover rate on *subsequent* five year average state growth rates.

The data indicates that our previous results with respect to the impact of unionization, taxes, education and initial income on state economic growth remain robust.

Additionally, our cross section F-statistic continues to validate our fixed effects model.

Our results reveal a negative and significant effect of both the five and fifteen year political turnover variables on state economic growth. We argue that the sign and significance of the coefficient on our fifteen year party turnover variable deals convincingly with Mueller's (1982, p.156) skepticism regarding causality.

6. Conclusion

Marcus Olson's (1982a) famous argument is that differences in National or Regional growth rates can be explained by differences in the degree of entrenchment of interest groups. He suggests that the more stable the political system or ruling regime, the more of an opportunity exists for those interest groups to extract efficiency (& growth) decreasing rent-seeking transfers.

This essay directly tests the Olson hypothesis using a panel of U.S. states and argues for a positive link between political stability and growth. We expect that since, at the margin, policymakers decide between serving special vs. general (growth enhancing) interests, that the payoffs to minimizing redistribution only will be a rational investment in regimes with higher expected durability. Therefore, states with higher political turnover (& hence higher expected turnover) should be associated with more rent-seeking behavior and lower marginal growth rates. Using four different measures of political instability we consistently find a significant negative relationship between it and U.S.

state economic growth. We interpret this result as illustrating the positive relationship between rent-seeking and political *instability*.

Table 1

Modeling the State Growth as an Balanced Panel

Dependent Variable: Five year average U.S. State real per capita income growth: 1975-2005 (n=31, 50 cross sections, 1550 total observations).

Independent Variables	Eq. 1*
Constant	0.34 (31.35)
Real Per capita income (t-5)	-.00002 (-25.03)
Five year average growth in union membership	-.04 (-4.44)
Five year average growth in Tax Burden	-.13 (-7.01)
% population over 25 with at least a Bachelor's Degree (t-5)	.02 (21.57)
Five year average change In Gubernatorial Party Affiliation	-0.0005 (-4.54)
Adjusted R²	.34
Cross Section F-Statistic (P-value)	11.17 (.0000)

T-statistics are in parentheses.

*Estimated using Panel Generalized Least Squares with cross section weights and cross section fixed dummies (not presented).

Table 2

Testing the robustness of the political turnover variable

Dependent Variable: Five year average U.S. State real per capita income growth: 1975-2005 (n=31, 50 cross sections, 1550 total observations).

Independent Variables	<i>Eq. 2*</i>	<i>Eq. 3**</i>	<i>Eq. 4***</i>
Constant	0.35 (31.34)	0.34 (30.96)	0.35 (30.92)
Real Per capita income (t-5)	-.00002 (-25.03)	-.00002 (-24.56)	-.0002 (25.01)
Five year average growth in union membership	-.04 (-4.44)	-.034 (-4.35)	-.033 (-4.15)
Five year average growth in Tax Burden	-0.13 (-7.00)	-0.13 (-6.83)	-0.14 (-7.67)
% population over 25 with at least a Bachelor's Degree (t-5)	.02 (21.57)	0.02 (21.27)	0.02 (21.69)
Seven year average change In Gubernatorial Party Affiliation	-.0009 (-5.56)	-----	-----
Ten year average change In Gubernatorial Party Affiliation	-----	-.0006 (-5.25)	-----
Fifteen year average change In Gubernatorial Party Affiliation	-----	-----	-.0011 (-5.14)
Adjusted R²	.34	.36	.36
Cross Section F-Statistic (P-value)	11.66 (.0000)	11.42 (.0000)	11.61 (.0000)

T-statistics are in parentheses.

*** ** * Estimated using Panel Generalized Least Squares with cross section weights and cross section fixed dummies (not presented).

Table 3

An additional sensitivity test

Dependent Variable: Five year average U.S. State real per capita income growth: 1975-2005 (n=31, 50 cross sections, 1550 total observations).

Independent Variables	Eq. 5*
Constant	0.35 (30.36)
Real Per capita income (t-5)	-.00002 (-24.50)
Five year average growth in union membership	-.033 (-4.13)
Five year average growth in Tax Burden	-.14 (-7.11)
% population over 25 with at least a Bachelor's Degree (t-5)	.02 (21.31)
Five year average change In Gubernatorial Party Affiliation	-0.0002 (-2.36)
Fifteen year average change In Gubernatorial Party Affiliation	-0.0009 (-3.50)
Adjusted R²	.37
Cross Section F-Statistic (P-value)	11.40 (.0000)

T-statistics are in parentheses.

*Estimated using Panel Generalized Least Squares with cross section weights and cross section fixed dummies (not presented).

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