Interest groups and investment: A further test of the Olson hypothesis *

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Abstract. Mancur Olson's institutional sclerosis hypothesis may be evident in the effects of interest groups on investment in physical capital. To test this proposition, we use cross sectional data on 42 countries for which information on the number of interest groups is available to estimate the effect of those groups on the share of GDP that goes into physical investment. The results indicate that interest groups have a different effect on physical investment in OECD and non-OECD countries. In the OECD countries, we find support for the hypothesis that interest groups harm investment in physical capital. In developing countries, interest groups either have no effect on physical investment or they have a slight beneficial impact.

1. Introduction

In *The Rise and Decline of Nations* (1982) Mancur Olson argued that stable societies would be fertile ground for the development of special interest groups. As these groups formed and developed they would focus their energies on redistribution of income and wealth. The groups would, in effect, fight to carve up the economic pie to the detriment of growth of the pie.

Olson (1982, 1983) showed support for his hypothesis by connecting the length of the period of stability a country had to the formation of interest groups and then to the growth rate of that economy. In much of the work, the number of years since the last "upheaval" was an explanatory variable in a regression equation explaining the rate of growth of income. An important criticism of Olson's work is that it does not make explicit the linkage between interest groups and economic growth (Gray and Lowery, 1988).

Knack and Keefer (1997) also examined the relationship between interest groups and economic growth, and between interest groups and investment. Their primary interest was in the relationship of "social capital" to economic

performance, but they also examined the effects of memberships in groups on the rate of economic growth and on the share of investment in GDP. They split groups into "Olson groups" and "Putnam groups", where the former are trade unions, industry associations and the like, while the latter are religious, cultural and youth oriented. Olson groups are expected to exert a drag on economic performance whereas Putnam groups are expected to enhance economic performance. They find that Olson group membership is not statistically significant in either the growth or the investment share equation. However, Putnam group membership is statistically significant in the investment share equation, but of the opposite sign than predicted. In other words, more membership in the sorts of groups that build social capital results in lower investment relative to GDP. Using an expanded data set, Knack (2002) revisits these issues but comes away with the same perverse finding that more Putnam groups result in a lower investment share.

In this paper we also address the connection between investment and interest groups. Using data created by Murrell (1984) on the number of interest groups in 42 different countries, we test whether more interest groups translate into a smaller share of GDP going to investment.[1] The intuition is that with more interest groups comes more lobbying and rent-seeking, more effort devoted to protecting market share from competitors, and less emphasis on research and development that leads to new products or technological improvements, less investment and, therefore slower economic growth.

Previous studies have suggested the relationship between economic growth and Murrell's estimate of interest groups is not consistent across nations. Although McCallum and Blais (1987) report no support for Olson's theory in their cross-country tests on a sample of 17 OECD nations, Coates and Heckelman (2003) find the effects among a sample of 22 OECD nations to be non-linear, as additional groups add less additional harm to economic growth, and their impacts are reduced over time if no additional groups accumulate. Heckelman (2000) does not find a significant correlation using a larger sample of 42 nations, but does when limiting the sample to 34 nations which did not experience any coups during the sample period, consistent with Olson's theory of upheaval destroying the harmful influence of the special interest groups.

Our results suggest there is general support for the role of interest groups in determining the share of a country's GDP that goes into investment in physical capital. The evidence reveals that interest groups enhance the investment share in non-OECD countries, but reduce investment as a share of GDP in the OECD countries.

Table 1. Descriptive statistics on special interest groups by original OECD membership status

	Interest groups		ln interest groups	
	OECD	non-OECD	OECD	non-OECD
Mean	1239.7	104.6	6.5	4.0
SD	1428.5	127.5	1.2	1.2
Diff mean	1135.1		2.5	
p-value	.0048		.000	
Correlation	0.62		0.73	

2. Data description

The data used in the analysis come from the Barro and Lee (1993) data set which is used frequently in studies of economic growth, with the exception of the raw interest group variable, which comes from Murrell (1984). To be clear, the interest groups are all what Murrell described as "sectional" groups. These are groups that represent "economic agents who undertake a specific economic activity: for example, an industry's trade association". The interest group variable is available only for 42 countries, 17 of which are original members of the OECD. In the analysis we focus on the natural logarithm of the interest groups (Table 1).

The interest group variable clearly splits the OECD and non-OECD countries. Table 2 shows the means of the interest group variable by OECD membership status and the correlations between the interest group variables and original OECD-membership.[2] There is a clear positive and statistically significant correlation between the number of special interest groups in a country and its OECD membership status. In a bivariate regression, a little more than half the variation in log of special interest groups is explained by the OECD dummy, which is almost twice as much of the variation that OECD membership explains for the absolute number of special interest groups.

The number of interest groups is also positively correlated with income, measured as the logarithm of per capita GDP (these results are not reported in the table). The correlations are statistically significant among the OECD nations at 3% and less than 1% for special interest groups and its log form respectively, with the log form generating a significant positive relationship to income among the non-OECD nations as well.

Whether there is causation between log of groups and income and which direction it runs are open questions. It is possible, for example, that interest groups are a normal good. In this case, as income rises, so too will the number of interest groups. Such a relationship is consistent with the positive

Table 2. Variables and descriptive statistics

Variable, definition (Barro-Lee dataset code)	N	Mean	SD	Min	Max
Total physical investment, ratio of real domestic investment to real GDP 1970–1974 (invsh53)	42	0.25	0.11	0.02	0.42
Private physical investment, ratio of real private domestic investment to real GDP 1970–1974 (invsh53-ggcfd3)	41	0.20	0.10	–0.01	0.38
Natural log of GDP per capita in 1970 (log-gdp7)	42	8.34	0.88	6.07	9.50

correlations found here. At the same time, the Olson institutional sclerosis hypothesis suggests that countries with more interest groups should experience slower growth than countries with fewer groups and, all else held constant, will have lower levels of income.

This paper hypothesizes that a linkage through which institutional sclerosis works is the harmful effects that interest groups have on investment in a country. The share of a country's GDP that goes into capital investment is taken from the Barro and Lee (1993) data set. Physical capital investment is represented alternatively by either total (public plus private) real domestic investment relative to real GDP, or simply private investment relative to GDP. Each variable reflects the average over the period 1970–1974. Table 2 presents descriptive statistics on these variables for the full sample of countries.

The evidence from simple correlations between log of groups and investment share is mixed. The correlations suggest the conclusion that the relationship between interest groups and investment differs by OECD membership. A table of these correlations is available upon request.

3. Regression analysis

Table 3 reports the results of regressions relating the log of interest groups and the log of GDP per capita in 1970 to the investment variables. The results generate three conclusions. First, if the OECD and non-OECD countries are combined in one sample for analysis, then the interest group variables are found to have no effect. This result holds for either of the investment variables. Second, the log of real GDP in 1970 is positive and statistically significant in nearly every equation. In other words, investment in physical capital rises as income rises. Third, the log of interest groups is negative

and statistically significant in regressions explaining investment in physical capital using only the OECD member countries, whereas it is positive, though typically not statistically significant, in the non-OECD member countries. In the non-OECD countries, the log of groups variable is statistically significant at the 10% level in the total physical investment equation and has a p-value of 0.126 in the private investment equation. These findings support our hypothesis that interest groups reduce economic vitality by diverting resources from investment into other activities, such as rent seeking, at least in the developed countries. Interest groups, however, appear to weakly stimulate physical capital investment in the less developed nations.

These results are consistent with the simple correlations mentioned above. Interest groups clearly appear to have different effects in OECD countries than they have in the non-OECD countries. One might contend, however, that our results are produced by omitted variables bias. Robert Barro (1997), Knack and Keefer (1997), and Knack (2002) each have estimated investment share equations using a variety of additional explanatory variables to capture institutional and economic determinants of investment such as measures of democracy, stability, and the cost of investment. In anticipation of this criticism, we estimated the model including many of the explanatory variables used in those studies. Due to space limitations, we do not present tables of regression results, which are available upon request.[3] We simply emphasize here that the effects of interest groups on investment in physical capital differ between OECD and non-OECD countries even when the Barro-Knack-Keefer variables are included with our interest group variables.

Our results indicate that the interest group variable is capturing something about the determination of physical investment in both the OECD and the non-OECD countries. Moreover, what that is differs by level of development, and is not simply income, regime stability, or democracy, all of which are controlled for in the additional regressions. It is also clear that more interest groups are harmful to investment share in the developed countries, but may be somewhat beneficial to investment in the less developed countries.

4. Conclusion

In this paper we have examined the relationship between interest groups and investment in physical capital. While the sample size is limited, the evidence suggests that interest groups in developed countries have harmful effects on the share of GDP that goes toward investment. This result is evidence in favor of the Olson institutional sclerosis hypothesis. The evidence also suggests that interest groups in developing countries may play a beneficial role in increasing the share of GDP that is invested. This would appear to refute

Table 3. Investment share equations (p-values)

	Full sample	
	Total physical	Private physical
Constant	−0.360	−0.348
	(.011)	(.010)
ln GDP	0.068	0.061
	(.001)	(.002)
ln interest groups	0.008	0.008
	(.444)	(.393)
Adj. R^2	0.41	0.39
	1961 OECD membership	
	Total physical	Private physical
Constant	−0.143	−0.402
	(.494)	(.139)
ln GDP	0.075	0.097
	(.022)	(.019)
ln interest groups	−0.034	−0.033
	(.013)	(.035)
Adj. R^2	0.29	0.26
	Non-OECD membership	
	Total physical	Private physical
Constant	−0.437	−0.388
	(.016)	(.023)
ln GDP	0.067	0.057
	(.009)	(.017)
ln interest groups	0.029	0.026
	(.099)	(.126)
Adj. R^2	0.42	0.36

Olson's model of institutional sclerosis. However, his discussion in Chapter 4 of *The Rise and Decline of Nations* suggests his model applies specifically to developed nations and not to developing countries. Nonetheless, the source of this possible beneficial effect of groups is unknown. Possible explanations are that among developing countries those with more interest groups are more socially cohesive, exhibit greater rule of law, or have more social capital than those with few interest groups. However, controlling for these factors did not

alter the positive impact of these groups on investment share in the developing countries, so the number of groups is not simply a proxy for democracy and stability.

Our analysis does not include interest groups of the "Putnam" type, as do Knack and Keefer (1997) or Knack (2002). For this reason, to the extent that their hypothesis of off-setting effects of these two types of groups is true, our results will be biased. However, in neither of those papers is there evidence for this offsetting effect. Both studies found a harmful effect of "Putnam-groups" on investment share. Knack (2002) reports the high positive correlation between his "Putnam-groups" variable and our special interest group variable for the 27 countries which overlap in our samples. Most of these countries are developed rather than developing, and of those that are developing most have been relatively stable over the period of his analysis, 1980–1999. Consequently, Knack's (2002) finding of a negative effect of groups may be consistent with our finding for the OECD countries, though we think it is evidence of something else.

We suggested above that group formation may be a normal good, with individuals in higher income countries choosing to consume more group memberships. We also provided evidence on the correlation between groups and income that support this conjecture. The type of groups that Knack and Keefer identify as "Putnam-groups" are likely to be precisely the types of groups that people "consume" more of as income rises. These groups offer consumption of specific goods and/or services as benefits of membership. Therefore, as memberships in these organizations rise, consumption rises as a share of GDP, all other things equal, and consequently, investment's share of GDP must fall. This is not the sclerotic effect of interest groups that Olson had in mind. Indeed, this is not sclerotic at all, because consumers have chosen to join these groups, to consume these goods, rather than to save and invest.

Notes

1. Our analysis differs from that of Knack and Keefer (1997) or Knack (2002) in at least two ways. First, our interest group variable is the total number of industry or trade associations in a country, whereas their group variables measure the average number of group types that an individual has at least one membership in. Second, we do not have any measure of Putnam groups. Knack (2002) shows that our group variable is strongly correlated with his variables, including even the Putnam groups variable.
2. The corresponding correlations and p-values are only slightly smaller when defining OECD as membership in 1970.
3. F-tests of the joint significance of the additional variables fail to reject the null hypothesis.

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