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CONFLICTS AMONG LEVELS OF GOVERNMENT IN A FEDERAL SYSTEM

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Abstract

Even after two decades, the "flypaper effect" remains a major anomaly of local public finance. It is, moreover, the only empirical evidence supporting the Leviathan view of government. This paper reviews previous explanations of the "flypaper effect" and provides a compelling rationale based upon adjustment costs. It is shown that modest adjustment costs are consistent with an efficient outcome exhibiting a powerful flypaper effect. The paper briefly applies the lessons to the issue of fiscal reform in Eastern Europe.

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...the real danger of socialism is that of a bureaucratization of economic life.... Unfortunately we do not see how the same, or even greater, danger can be averted under monopoly capitalism.

Oskar Lange, **On the Economic Theory of Socialism**, pp. 108-109.

I. INTRODUCTION

As the Eastern European countries seek to transform their public sectors from centrally directed autocratic organizations to modern democratic institutions, the role of lower levels of government in this transformation has come under scrutiny. It seems clear that local governments can no longer merely be agents of central authorities. Indeed, there is a clear presumption that "top down" comprehensive planning is as inappropriate in the public sector as in the private sector. Thus, the likely outcome of economic reform in service delivery in the Eastern countries will be some form

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of fiscal federalism, at least in the economic sense. The two salient characteristics of this structure are the division of responsibilities among levels of government according to some economic criteria and the use of grants and intergovernmental transfers from the central government, rather than central government edicts, to steer local action.

The economic benefits of abandoning central command and control in the public sector are, perhaps, not as clear cut as the benefits of competition in the private sector. The benefits rest on the abilities of lower levels of government to enhance allocative and productive efficiency by responding to the demands of citizens for services, and by competing with one another for population and tax revenues.

The theoretical rationale for the presumption that decentralization will improve allocative efficiency rests on the "median voter" model. According to this theory of economic democracy, the choices of local governments will be made according to the preferences of the decisive citizen, that citizen whose vote will "win" a local election. Although the conditions under which the results of the median voter model would literally determine local service provision are quite restrictive (See, for example, Bergstrom and Goodman, 1973), the appeal of the paradigm is quite strong. One implication of the theory concerns the effects of grants from

the central government on the economic behavior of local governments. According to the median voter theory, untied grants to local governments are simply income transfers, but matching grants further stimulate local government spending by reducing the price of selected public activities as well as adding income. Untied grants stimulate local spending according to the income elasticity of demand of the median voter, and matching grants stimulate spending according to the price elasticity of demand. Again, the conditions under which this would literally describe public service provision are quite restrictive (See, for example, Bradford and Oates, 1971). But -- and this is the key point -- citizen sovereignty presupposes a tight relation between citizen demand and public sector supply.

The implication of citizen sovereignty -- that untied grants stimulate spending according to income elasticities - has been tested, and has been rejected repeatedly, giving rise to the anomaly called the "flypaper effect" ("grant money sticks where it hits"). The flypaper effect (a shorthand description for the finding that untied grants lead to far larger increases in government expenditures than is predicted by median voter theory) may call into question the efficiency gains from a less centralized public sector and from an increased reliance upon local government decision making. Indeed, the flypaper effect may simply revive fears in Eastern

Europe of the Leviathan government, one whose behavior is very different from the desires of its citizens.

This "flypaper effect" thus has clear implications for the design or reform of fiscal relations within countries of Eastern Europe. In this paper, we consider some of these abstract issues and provide some interpretation relevant for institutional design.

Section II reviews the theoretical models which have been offered as explanations of the flypaper effect. These explanations fall into two categories: benign interpretations of governmental behavior on the one hand, and interpretations involving monopoly government and collusive governmental behavior on the other hand. We concentrate on the latter group of theories, because it is in these that the alleged inefficiency of governmental design may lie.

In Section III we present an alternative model in which the flypaper effect is observed, but in which the effect arises from the efficiency of local governmental agents who actually do respond to the preferences of citizens, but in a world of costly adjustment.

Section IV speculates on the applicability of this analysis to institutional design, with particular reference to Eastern Europe.

II. THE FLYPAPER EFFECT

After two decades of study, the "flypaper effect" remains one of the major anomalies of public sector microeconomics. According to traditional consumer choice theory, a block grant should have the same effect on expenditures as an equivalent reduction in central government taxes, or any other exogenous increase in disposable constituent incomes. A grant simply shifts out the budget constraint facing citizen voters. Matching grants are expected to be more stimulative than block grants because they also reduce the effective price of local services facing the decisive voter. Yet, in the United States and Great Britain at least, block grants stimulate local government spending by far more than theory predicts. For example, Gramlich's 1977 survey suggested that the local spending induced by block grants was several times the spending induced by increases in other income.

Two general classes of theories have been advanced to explain why "money sticks where it hits." One group of theories points to the behavior of government or public officials in thwarting the popular will or in misleading the citizenry. A second set of theories suggests that the phenomenon is merely an artifact arising from the way grants are provided or the way public goods are produced. We review this reasoning below, paying more attention to the former category.

A. Nefarious Explanations

Brennan and Buchanan (1978, 1980) have put forth a disturbing view of the public sector in which a monolithic government systematically seeks to exploit its citizens by maximizing the tax revenues extracted from the private economy. Although the implications of the Brennan-Buchanan analysis are quite disturbing, almost no empirical evidence is offered by them in support of this view of government as Leviathan.

In this context, the existence of the flypaper effect has been taken as evidence that the Leviathan view has practical relevance. At least, it appears that government systematically extracts more in tax revenues from citizens than they would choose to supply. Indeed, until recently, the flypaper effect was about the only evidence at all on the existence of Leviathan government.[1]

Flypaper interpretations of the relationship between central government grants and local government expansion arise from theories in which the government is able somehow to

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1 Wallace Oates' cross sectional study (1985), using countries as units of observation, found no systematic relationship between the size of the public sector and the degree of centralization of governments. He interpreted his as casting "considerable doubt on the usefulness of the Leivathan model (1985, p. 756)." See Nelson (1987), Forbes and Zampelli (1989) and Zax (1989) for alternative interpretations.

manipulate the citizenry. We therefore call such interpretations nefarious. One such interpretation, put forth in various forms by Courant *et al* (1979), Oates (1979) and Winer (1983), is that the government can fool the public into thinking that the relevant price of public expenditures for making choices is an average, rather than a marginal, price. If this were the case, a lump-sum grant could have substitution and income effects, both of which would augment local government spending. The resulting increase in local spending caused by the increase in income would be as predicted by median voter theory. However, the additional observed increase in government spending due to the lower perceived price would not be predicted by that theory.

The principal underlying these models is the following: At a price of one, the median voter of income Y chooses X as the per capita level of local spending. An untied grant of Z per capita is not presented to the citizenry as an increase in income to Y+Z, but rather as a reduction in the price of services from 1 to (X-Z)/X. Under reasonable price and income elasticities, this illusion would increase local spending and the size of local budgets.

A related model, based on another sort of fiscal illusion created by government officials, is presented by Filimon *et al* (1982). This model assumes that government officials can "hide" a portion of the lump-sum grant from the voting

public.[2] The median voter determines the amount to be spent out of the perceived grant amount. Budget maximizing government officials are assumed to allocate the "hidden" portion of the grant to public spending in order to maximize local government size. The outcome of this behavior would be a measurable flypaper effect. Again, the government is able to fool its citizens in order to increase the size of its budget.

These variants of fiscal illusion are quite partial in nature. For example, if voters perceive an untied grant to be a price reduction, they expect to be able to spend more on local public output without reducing other expenditures. Grant finance will reduce their incomes -- and with fiscal illusion by more than they expect. This mismatch between perceived and actual incomes should cause perceptions to be revised and fiscal illusion to disappear in the long run.

Logan (1986) presents a more general version of the fiscal illusion argument in an attempt to explain the persistence of the flypaper effect in the long run. Logan argues that federal lump sum aid causes the median voter to perceive a *reduction* in the "price" (average cost) of *local* services, and an *increase* in the "price" of *national* programs. Consequently, the median voter demands an increased level of

2 Specifically, the authors assume that the exact level of grant aid received by the local government is not known to the voters. They term this "grant illusion."

local services and a reduction in national expenditures. Logan argues that this "dual illusion" could persist over time because the voter attributes a diminished disposable income to the perceived increase in federal prices.[3]

Logan tests this model empirically using U.S. data, claiming that the "dual illusion model" fits the data well. Reasonably similar results were obtained by Hammes and Wills (1987) in an application of this model to Canadian data.

An alternative mechanism by which budget maximizing government bureaucrats extract revenues from their citizens is proposed by Romer and Rosenthal (1978, 1980). This model hinges upon the advantages to the bureaucrats of having the agenda set by government authorities. The authors consider the outcomes of referenda voting in which the level of government spending if the referendum is defeated (the so-called "reversion level") is specified exogenously. In particular, where there is some well defined reversion level of public spending which is less than that desired by the median voter, the government can offer the citizenry a higher level of spending barely preferred to the reversion level. The lower the reversion amount is, relative to the preference of the median voter, the higher government's offer can be in terms of public spending. Agenda control by the government,

3 Note, however, that it is hard to describe this outcome as a manifestation of Leviathan, since the illusion leads to "too little" spending at the national level.

and an all-or-nothing choice offered by the government, can lead to the Leviathan outcome.

A third mechanism leading to the flypaper effect arises from the behavior of special interest groups. According to Dougan and Kenyon (1988), for example, interest groups lobbying for increased spending on categorical programs can insure, through logrolling behavior and campaign contributions, that larger fractions of categorical grants are spent on particular programs than would be chosen by the median voter in the citizenry at large. In these models, the government can collude with interest groups **ad seriatim** to increase spending in response to categorical grants.

Each of these theories leads to the conclusion that a federal economic structure, with categorical and block grants to lower levels of government, will lead to a larger and less responsive government than would be chosen by the citizens in a democratic manner.

B. Benign Explanations

There are at least three other explanations for the flypaper effect that deny the conclusion that local government is manipulating its constituents to enlarge its budget. The most straightforward follows the observation that block grants (and matching grants, too, for that matter) are typically awarded after application by a potential beneficiary. The

review of applications by a grantor provides an opportunity for negotiation between governmental agents. Grantors have an interest in seeing that recipients increase spending on a particular sector while grantees have an interest in securing the grant. Thus, what appears to third parties, or to econometricians, as an untied block grant is actually (and intentionally) a grant conditional upon increased spending for a particular function. In particular, the "price" faced by local governments and the amount of money the locality receives are simultaneously set in a single negotiation, as analyzed by Chernick (1979), or in a repeated game, as analyzed by Weiss (1990).

Moffit (1984) provides an extended and more sophisticated version of this simultaneity argument. He points out that the varying matching rates and the closed-end nature of most untied grants lead to a kinked or a piecewise-linear budget constraint. These budget sets may be convex or nonconvex, depending on the rate structure. For example, closed-ended matching grants, common among federal grant programs in the U.S., create a single-kinked convex budget constraint. The program providing Aid For Dependent Children (AFDC), which has varying matching rates, creates a budget set with both convex and nonconvex regions.

With such programs, the local government expenditure level and the matching rate and, thus, the marginal price, are

simultaneously determined. This means that price and income are random variables, and the use of simple single equation statistical techniques to estimate local government demand coefficients will produce biased estimators. Moffit argues for a simultaneous equations approach to the problem.

In a Monte Carlo simulation, Megdal (1987) concludes that the use of ordinary least squares (OLS) regression models to estimate a piecewise-linear budget constraint will result in estimates of propensity to spend that are biased upwards. Based on these results, she suggests that estimates of the flypaper effect relying on OLS models may more generally be too large. Using a maximum likelihood procedure, Moffit (1984) estimates the impact of AFDC grants on local government expenditures, finding that the flypaper effect disappears when more appropriate statistical procedures are used.

These papers cast doubt on the earlier empirical studies reporting the flypaper effect. Nonetheless, it is unlikely that the existence of a flypaper effect is merely a byproduct of incorrect statistical procedures. A very recent study by Barnett *et al* (1991) employs carefully specified maximum likelihood techniques to estimate the impact of central grants on local government expenditures in Britain. The authors test two different models: a conventional median voter model of utility maximization and a variant of the fiscal illusion model described above. The latter model generally provides a

better statistical explanation of expenditure variations in past years, and also outperforms the conventional model in forecasting.

A second rationalization for the flypaper effect that does not depend upon the misbehavior of local government stresses the role of community income in conditioning the production of local services (The example, provided by Hamilton, 1983, considers average community income, a measure of socioeconomic status, SES, as in input in producing schooling). A grant to local governments increases the demand for education but does not affect the SES of residents. Thus in a cross section, local governments would appear to spend more of the income from a grant on education than they would from an equal increase in earned income. Income from the latter source implies greater efficiency in production and thus lower expenditures on purchased inputs to achieve the same level of public output. Again, this theory suggests that the flypaper effect could be explained at least partially by the failure of the econometrician to specify properly the estimating model.

A third rationale for the flypaper effect which does not rely upon a Leviathan government emphasizes the role of taxation in financing grants to lower levels of government. Models proposed by Heins (1971) and Fisher (1979) indicate how a flypaper effect could arise from differences in national and

local tax systems. For example, if the median voter's share of local taxes is smaller than his share of the increase in national taxes paid by the local jurisdiction in financing a grant, then the median voter would receive an income gain from the fiscal relationship. Thus an additional increase in spending, a flypaper effect, could be observed, even if a grant is fully financed by increases in central government taxes and even if the median voter dominates. Fisher (1982) concedes, however, that this tax substitution effect is quite small and is unlikely to explain fully the flypaper effect estimated in empirical studies.

III. AN ALTERNATIVE RATIONALE

In this section, we describe an alternative rationale for the observed flypaper effect which does not arise from attempts at aggrandizement by government and which is, we believe, more plausible than any of the benign explanations discussed above. In this alternative model, the observed increases in spending arise, not from the inefficiency of local governments, but rather from the efficiency of local government in responding to the demands of their citizens.

The key to this model is the costliness of changes in tax rates in response to variations in economic circumstances. In response to a block grant, it takes time, effort and skill to negotiate a reduction in tax rates to the new optimal level demanded by the median voter. These resources may be

squardered if it is anticipated that simple growth in income will require that tax rates will shortly have to be increased again. More generally, any tax reduction would be transitory if anticipated increases in income or in the costs of service will lead to future increases in taxes to reflect the demands of the median voter.

With costly adjustment, the efficient decision in response to an exogenous grant arises from a comparison of two courses of action. One is to increase public spending by the entire amount of the grant, suffering a short-term loss in utility in comparison to the first best allocation. The second course of action is to pay the adjustment costs and to change tax rates so as to increase public spending by precisely the amount demanded by the median voter.

If the transaction costs are high enough, then an increase in spending by the full amount of the grant is economically efficient. In the simulations presented below, we find that even for rather small transactions costs the second best course of action -- to devote the entire grant to public spending (and thus to generate a flypaper effect) -- provides a higher level of well being to the citizenry.

This result arises because the utility achievable without reoptimizing expenditures is "close enough" to the first best optimum in a wide variety of circumstances.

Consider the following stylized model. Let the utility function for the median voter be CES

$$(1) \quad U = [\omega\, G^{-\rho} + X^{-\rho}]^{-1/\rho} \quad ,$$

were G is consumption of publically produced goods and X is consumption of private goods. ω and ρ are parameters; ω is the so-called distribution ratio, and $(\rho+1)/\rho$ is the elasticity of substitution in consumption between public and private goods. As ρ approaches zero, the utility function approaches Cobb Douglas; as ρ increases the utility function approaches Leontief. For ρ equal to minus one, the utility function is linear.

The budget constraint facing the median voter is

$$(2) \quad Y = P_X X + P_G G \quad ,$$

where Y is total income and P_X and P_G are prices. Choose the units for X and G so that $P_X=P_G=1$,

$$(2') \quad Y = X + G \quad .$$

From (1) and (2′), utility as a function of income is

$$(3) \quad U = \left[\omega \left\{ \frac{Y}{\omega^{\alpha}+1} \right\}^{-\rho} + \left\{ \frac{Y\omega^{\alpha}}{\omega^{\alpha}+1} \right\}^{-\rho} \right]^{-1/\rho}$$

where $\alpha = -1/(\rho+1)$.

Now consider an untied grant of bY to the median voter. If the grant is spent optimally, the utility level arising from the grant is

$$(4) \quad U_1 = \left[\omega \left\{ \frac{Y(1+b)}{\omega^{\alpha}+1} \right\}^{-\rho} + \left\{ \frac{Y(1+b)\omega^{\alpha}}{\omega^{\alpha}+1} \right\}^{-\rho} \right]^{-1/\rho} .$$

Alternatively, if the entire amount of the grant is simply added to the government sector, then the level of utility is

$$(5) \quad U_2 = \left[\omega \left\{ \frac{Y}{\omega^{\alpha}+1} + bY \right\}^{-\rho} + \left\{ \frac{Y\ \omega^{\alpha}}{\omega^{\alpha}+1} \right\}^{-\rho} \right]^{-1/\rho} .$$

The difference U_1-U_2 is the loss suffered by the median voter from not reoptimizing consumption of public and private goods in response to the untied grant.

The transactions costs of changing tax rates can be introduced in a straightforward way. Suppose the transactions costs of reoptimizing taxes and expenditures are fbY. If the median voter reoptimizes, utility of that person will be

$$(4') \quad U_1 = \left[\omega \left\{ \frac{Y(1+b-bf)}{\omega^{\alpha}+1} \right\}^{-\rho} + \left\{ \frac{Y(1+b-bf)}{\omega^{\alpha}+1} \right\}^{-\rho} \right]^{-1/\rho}$$

Given suitable parameter values, we can compute the compensating or equivalent variation required equilibrate the

utility levels (4′) and (5). Tables 1 and 2 present some simulations of equivalent variation, defined as the amount by which income could be reduced at the optimum (U_1) so that utility is equivalent to that obtained by spending the entire grant on public sector products (U_2). The table presents the equivalent variation, as a percent of grant, which would leave the median voter as well off as he would be if the grant were spent entirely public sector outputs.[4]

In Table 1 the block grant is assumed to be ten percent of income; in Table 2 the block grant is assumed to be five percent of income. (These magnitudes bracket the US experience during the decades of the 1970's and 1980's.) The first column presents the equivalent variation assuming there is no cost to changing tax rates. The values are generally small, even with a grant of ten percent of income. Quite obviously the magnitudes do vary. When ω is quite small, indicating that government services get little weight in utility, the equivalent variation is larger. But for values as low as .5, the equivalent variation is quite modest for most reported values of ρ.

Columns two through five indicate the effects of transactions costs on the equivalent variation to the median

4 The entries in the table are 100(k/b), where

$$k = 1 - \left[\frac{\omega\{1+b(\omega^{\alpha}+1)\}^{-\rho} + \omega^{-\alpha\rho}}{\omega\{1+b-bf\}^{-\rho} + \{(1+b-bf)\omega^{\alpha}\}^{-\rho}} \right]^{-1/\rho}$$

TABLE 1

Equivalent Variation, as Percent of a Block Grant, to Compensate Median Voter for Spending Entire Grant on Public Products Rather Than Reoptimizing Consumption Grant is Ten Percent of Income

$$U = [\omega G^{-\rho} + X^{-\rho}]^{-\rho}$$

		Adjustment cost as a fraction of grant				
	ω	0.00	0.05	0.10	0.15	0.20
ρ=-0.99	1.00	0.04%	-4.52%	-9.13%	-13.78%	-18.48
(≃ linear)	0.90	6.30	1.77	-2.81	-7.43	-12.10
	0.85	11.00	6.49	1.93	-2.67	7.31
	0.50	43.91	39.55	35.14	30.70	26.21
	0.01	89.97	85.81	81.62	77.39	73.12
ρ=0.001	1.00	4.14	-0.40	-4.99	-9.62	-14.30
(≃ Cobb-Douglas)	0.90	4.58	0.03	-4.56	-9.19	-13.86
	0.85	4.83	0.28	-4.30	-8.93	-13.60
	0.50	7.83	3.30	-1.28	-5.89	-10.55
	0.01	68.95	64.70	60.41	56.08	51.71
ρ=0.5	1.00	6.21	1.67	-2.91	-7.53	-12.20
	0.90	6.62	2.09	-2.49	-7.11	-11.77
	0.85	6.86	2.32	-2.25	-6.87	-11.53
	0.50	9.44	4.92	0.35	-4.25	-8.90
	0.01	53.87	49.55	45.19	40.79	36.35
ρ=1	1.00	8.26	3.74	-0.83	-5.45	-10.10
	0.90	8.67	4.14	-0.43	-5.04	-9.69
	0.85	8.90	4.37	-0.20	-4.81	-9.46
	0.50	11.26	6.75	2.19	-2.41	-7.05
	0.01	45.45	41.10	36.70	32.26	27.78
ρ=10	1.00	40.14	35.76	31.33	26.87	22.36
(≃ Leontief)	0.90	40.36	35.98	31.56	27.10	22.59
	0.85	40.49	36.11	31.68	27.22	22.74
	0.50	41.63	37.25	32.84	28.38	23.88
	0.01	50.17	45.84	41.46	37.04	32.58

voter. Clearly the existence of adjustment costs reduces these already small equivalent variation payments. For many of the parameters indicated, modest adjustment costs are associated with negative equivalent variation, that is, the median voter is absolutely better off by not reoptimizing in response to a block grant.

Table 2 presents a similar pattern of results for a smaller block grant. In this case, of course the equivalent variation is even smaller. If the transactions costs amount to ten percent of the grant, the median voter is typically better off by spending the entire grant on public production.

Table 3 illustrates the arc income elasticities of demand computed by observing that the entire grant is spent on public services. For all variations in parameters, the elasticities -- the elasticity of public spending out of grant income -- exceed two, yet the elasticity of public spending out of ordinary income is generally one. Thus, an econometrician observing this pattern of expenditures would report a powerful flypaper effect.

Yet, as we have seen in Tables 1 and 2, this behavior -- spending the entire grant on public services -- is optimal, or very close to optimal, if there are any transactions costs.

Of course, it would be possible to choose parameters and functional forms in which the equivalent variation would be

TABLE 2

Equivalent Variation, as Percent of a Block Grant, to Compensate Median Voter for Spending Entire Grant on Public Products Rather Than Reoptimizing Consumption Grant is Five Percent of Income

$$U = [\omega G^{-\rho} + X^{-\rho}]^{-\rho}$$

		Adjustment cost as a fraction of grant				
	ω	0.00	0.05	0.10	0.15	0.20
ρ=-0.99	1.00	0.02%	-4.75%	-9.55%	-14.37%	-19.21%
(≃ linear)	0.90	6.01	1.25	-3.53	-8.34	-13.16
	0.85	10.96	6.22	1.45	-3.35	-8.16
	0.50	45.67	41.00	36.32	31.61	26.88
	0.01	94.25	89.70	85.13	80.54	75.92
ρ=0.001	1.00	2.27	-02.50	-7.29	-12.10	-16.94
(≃ Cobb-Douglas)	0.90	2.51	-02.25	-7.04	-11.86	-16.69
	0.85	2.66	-2.11	-6.90	-11.71	-16.55
	0.50	4.40	-0.36	-5.15	-9.95	-14.79
	0.01	60.93	56.30	51.65	46.98	42.29
ρ=0.5	1.00	3.40	-1.36	-6.15	-10.96	-15.80
	0.90	3.64	-1.12	-5.91	-10.72	-15.56
	0.85	3.78	-0.99	-5.78	-10.59	-15.42
	0.50	5.28	0.52	-4.26	-9.07	-13.90
	0.01	40.99	36.31	31.61	26.89	22.15
ρ=1	1.00	4.54	-0.23	-5.01	-9.82	-14.65
	0.90	4.77	0.01	-4.78	-9.59	-14.42
	0.85	4.90	0.14	-4.65	-9.45	-14.28
	0.50	6.29	1.53	-3.25	-8.05	-12.88
	0.01	31.75	27.05	22.33	17.59	12.82
ρ=10	1.00	24.02	19.31	14.57	9.81	5.02
(≃ Leontief)	0.90	24.20	19.49	14.75	9.99	5.21
	0.85	24.30	19.59	14.85	10.09	5.31
	0.50	25.23	20.52	15.78	11.02	6.24
	0.01	32.80	28.10	23.38	18.64	13.88

TABLE 3

Estimated Arc Income Elasticity of Demand When Entire Grant is Spent on Public Services

ρ	ω 1.00	0.90	0.85	0.50	0.01
-0.99 (≃ linear)	2.00	*	*	*	*
0.001 (≃ Cobb-Douglas)	2.00	2.11	2.18	3.00	*
0.5	2.00	2.07	2.11	2.59	22.55
1	2.00	2.05	2.08	2.41	11.00
10 (≃ Leontief)	2.00	2.01	2.01	2.07	2.52

Note:
* Arc income elasticity greater than 100.

more substantial. But for a broad range of plausible specifications,[5] a flypaper effect on government spending is consistent with the utility maximizing choice of government spending in the presence of transactions costs.

V. CONCLUSION

The countries of Eastern Europe have good reason to be wary of Leviathan governments. Despite our simulation results, it would be foolish to disregard those means by which local bureaucrats can thwart the will of the citizenry. The advantage to individual bureaucrats of maximizing government budgets is too familiar to repeat. The literature that is reviewed here shows that the means to achieve that end are clearly at hand. Lump sum grants can be misrepresented so as to appear to be tied grants. Some part of the flow of grants can be effectively hidden from the citizenry. Control of the voting agenda can lead to greater than optimal spending. Bureaucrats can collude with the special interests, **ad seriatim**, to raise aggregate expenditures.

It is also true, however, that the general case for the Leviathan bureaucrat remains completely unproven. Extremely

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5 A number of papers have estimated the parameters of CES utility functions relating the median voter's satisfaction with public and private goods (Lovell, 1978; Greene, 1982; Leuthold, 1988). This research, typically involving preferences for educational spending and other goods, yields no consensus on values of ρ and ω; the simulations in Table 1 and 2 bracket existing estimates.

plausible benign explanations exist for the empirical findings which support the flypaper effect. Grantor and grantee do collude. Local socioeconomic conditions affect the cost of public services. Econometric issues make the empirical findings uncertain.

Our results are based upon the simplest of all explanations for "overspending" in response to grants, namely the cost of achieving the optimal tax rates. Even small adjustment costs seem sufficient to rationalize the basic flypaper results.

We thus take this as additional evidence that systems of economic federalism relying upon intergovernmental grants need not awaken Leviathan, especially in its Eastern European form. We take our simulations as a modest indication that the emerging states in the East should proceed with economic federalism -- but with prudence.

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