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A NOTE ON TAXATION, DEVELOPMENT AND REPRESENTATIVE GOVERNMENT

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ABSTRACT

This article proposes a model representing the relationship between economic actors and revenue seeking governments. Given a need for revenues, the model predicts the allocation of the new tax burden and patterns of control over public policy.

The model is motivated by the history of the rise of parliaments in Western Europe. It is extended to urban and developmental politics. It is designed to employ the techniques of "neo-classical" economics to explore themes which have been developed most clearly in Marxist writings.

Most importantly, the model suggests the way in which, given a need for revenues, specific fractions of the private sector can gain control over public policy. And it characterizes precisely the factors which yield differences in the ability of economic agents to employ the market to defect from the tax-levying state. The analysis thus gives insight into both the origins and the limitations of political democracy.

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INTRODUCTION

Revenue seeking governments may well find it to their advantage to strike bargains with citizens whose assets they seek to tax. To induce a greater willingness to pay taxes, they may defer to the citizens' policy preferences. Such bargains may become more beneficial from the citizens' point of view the more mobile the assets the citizens hold.

These claims form the central themes of this paper. Their significance lies primarily in the light they cast upon the origins and limitations of democratic institutions. For they suggest the dynamics whereby asset owning elites can wrest control over public policy from revenue seeking monarchs, thereby securing the triumph of democracy. They also suggest the manner in which asset owning elites can secure political power by threatening market defection, thereby imposing their political will through the private market and compromising the power of public institutions.¹ In this paper, we explore such themes while drawing upon a variety of materials: the evidence of history, formal reasoning, and the musings of other scholars.

In investigating these ideas, this paper resonates with the

work of other scholars. Margaret Levi and Douglass North represent the state as a predatory revenue maximizer and explore the implications of bargaining between rulers and private agents for the evolution of institutions. Both Levi and North practice the "new institutional history" -- a field of scholarship which applies the tools of neoclassical economics to the study of institutional change.² Their principal interlocutors -- the devotees of Marx -- employ the tools of class analysis. In so doing, they associate absolutist power with agrarianism; the rise of parliaments with the rise of commerce; and the domination of the policy process in the modern era by capital, the most mobile factor of production.³

This paper possesses as one of its objectives the elision of these two fields of scholarship.

The paper also seeks to contribute to the literature on political development.⁴ Lipset, Coleman and others have related the level of economic development of various nations to the level of democracy exhibited by their political institutions. An objective of this paper is to provide a causal, or theoretical, grounding for the correlations which they observed. A second objective is to point out a normative error in their arguments. We will show that it is indeed likely that subnational fractions can come to dominate national policy making, and that the creation of democratic institutions therefore should not be uncritically equated with the enhancement of the collective welfare.

A TURN TO HISTORY

The Demand for Taxes

Historians of Western Europe stress that the fiscal problems of monarchs were driven by a common political imperative: the search for revenues with which to prosecute wars.

In his study of thirteenth-century England, for example, Michael Prestwich underscores "the importance and interest of the King's wars."⁵ Noting that "the traditional revenues of the crown . . . were quite inadequate for his needs [and that] the fines and scutages . . . did not come near to raising the funds needed to pay troops," Prestwich interprets the reign of Edward I in terms of his search for new taxes.⁶ And in studying royal taxation in Fourteenth-century France, John Bell Henneman states "the king had to pay his troops. Some military forces had to be maintained during truces or in times of peace. . . . Continually short of money, the king had to consider two possible remedies: one was the use of fiscal expedients which might provide a temporary windfall; the other was to find a different basis for taxation"⁷ As Henneman bluntly concludes: "taxes were virtually synonymous with war financing."⁸

The situation in England and France found its parallel throughout historical Europe: under the stimulus of warfare, monarchs sought greater public revenues. But, as Zolberg notes, when "the central power [looked] within the country for more efficient means of mobilizing the resources he needed, the effects produced were by no means exclusively determined by the external stimulus."⁹ Warfare did

not determine the nature of the tax system chosen nor the political consequences of that choice, Zolberg contends. Rather

It seems . . . that . . . a set of economic and social conditions dictated to the English state a strategy for mobilizing resources based primarily on trade whereas France, while developing the salt tax, lived mainly on direct taxes, and that this difference contributed to the differentiation of their representative institutions.¹⁰

The English monarchy sought to tax trade and this, Zolberg argues, promoted the growth of parliamentary democracy. The French taxed fiscal assets, such as salt mines and land; and this contributed to the growth of absolutism.¹¹ The historical evidence offers materials which allow us to fill in some of the steps which generated this overall pattern.

The Nature of the Tax Base

One of the most striking features of the evidence is that in both England and France it was the taxation of "moveable" property which promoted the conferral of political representation by revenue-seeking monarchs. In England, traditional sources of revenue included collections from the royal lands, taxes on the clergy, the proceeds of justice, and feudal aids. Such traditional taxes proved insufficient to meet the costs of warfare. As a consequence Edward I introduced taxes on trade and on moveables. Moveables were assets which could be hidden; they were "cows, oxen, grain, household goods, and other

possessions -- property that could be transferred from place to place."¹²

The new taxes -- the taxes on trade and moveables -- proved highly lucrative. Thus Mitchell notes that "Properly administered, they yielded far more than any other levy that we have heard about before, approaching the fabulous sums raised under the Anglo-Saxons."¹³ They possessed two significant shortcomings, however. They could be easily avoided. And partially as a consequence, they had to be bargained for.

In discussing the politics surrounding the introduction of the tax on the wool trade, Strayer notes both limitations:

the experiment should have demonstrated two things to Edward's advisers. In the first place . . . an increase of approximately 100% in the [tax] rate did not yield an increase of 100% in the returns. In the second place, it was clear that any attempt to secure increases . . . by nonparliamentary means would cause serious protests. . . .¹⁴

The Implications for Policy Making

A similar pattern emerged in France. Thus Henneman also notes that the monarch's attempts to raise greater levels of taxes led to the creation of forms of political representation. As he states:

A major purpose of [my] study is to relate the legal theories to actual practice, and in so doing we must look for guidance to the institutional historians. Their most valuable contributions have

concerned representative institutions and the mechanisms of consent. . . . According to the maxim quod omnes tangit, those whose rights were affected had to consent. . . . On a more practical level, no tax could be collected without considerable cooperation from those who were taxed, so their acquiescence was needed. . . . If we are to understand the constitutional implications of taxation in this period, we must relate taxation to the use of assemblies and relate both to the question of consent.¹⁵

In common with many other historians of this period in French history -- the mid-fourteenth century -- Henneman analyzes the variety of political doctrines used to justify the levying of, or resistance to, taxation. But in the course of Henneman's historical narrative, it becomes increasingly clear that the "practical" considerations were more significant than the doctrinal. Communities living in or near war zones proved more willing to pay for defense than those who lived distant from them. Taxes on fixed assets, such as the gabelle, were set and levied without consent.¹⁶ The more commercialized areas of France paid a sales tax; the less commercialized paid a hearth tax.¹⁷ Taxes on towns were negotiated. And so too were taxes upon the wealthier, more commercialized sectors of the country.¹⁸ The level of representation accorded different areas and interests, then, appears to have depended less upon the legal merits of various doctrines and more upon the political and economic factors which determined the level of demand for the monarch's protection and the capacity to evade

the monarch's levies.

Several other features of the development of tax systems are notable. One is the evolution of corporate forms, a theme stressed in the writings of those who, like Henneman, Strayer and Postwich, are preoccupied with the rise of political representation. By corporate forms, these scholars appear to mean institutions in which a subset of similarly situated agents in the political economy could make agreements binding on all such agents.

One reason for the evolution of such agencies, they stress, is that the bargaining for taxes was costly to monarchs. Monarchs therefore appear to have desired to bargain with fewer agents -- ones representative of the set of all agents.¹⁹ In addition to lower costs, the benefits of a collectively binding agreement were greater than the benefits of a tax which was imposed on the agents singly. Given the mobility of assets, were any one asset holder to pay a tax while others did not, the tax yield would decline; for the moveable assets would shift into the hands of those who remained untaxed. For these (and other) reasons, monarchs preferred collective, rather than individual, levies.

The historical sources repeatedly reveal that taxpayers themselves also preferred to negotiate collectively. Those acceding to a tax preferred that all similarly situated agents be taxed at the same rate. In France, for example, "local jealousies led towns to make subsidy grants conditional upon similar grants from other towns," according to Henneman²⁰ -- behavior which no doubt reflected the

desire and ability of business to locate in the municipality paying lower taxes.

It should be noted that the dynamics outlined thus far help to explain the manner in which the incentives to "free-ride" were overborn. Once initiated, tax-setting institutions quickly became "universal"; they set rates for all similarly situated agents. It was therefore difficult for sub-sets of the agents to receive the benefits of public policy while evading the costs of taxes.

Considerations arising on both the side of the monarch, who sought taxes, and the asset bearers, who paid them, thus favored the evolution of collectively binding agreements, and such considerations were related to the mobility of taxables.²¹ As Mitchell concludes:

The old individualism of the aid vanished and in its place appeared corporate action. The fruitfulness of the levies on moveables and hence the desire to draw all property under contribution and the inability or impracticability of consulting all property holders led to the employment of representatives that might act in behalf of the taxpayers.²²

A FORMALIZATION OF THE ARGUMENT

This brief review of some of the historical treatments of early taxation in Europe suggests that monarchs were driven to seek new taxes in order to finance wars; that in their search for increased taxes they expanded their tax base to include trade and moveable property; and that a variety of considerations, including the

elasticity of the tax yield, made it necessary for them to bargain with those who possessed property rights over the moveable tax base and to share with them formal control over the conduct of public affairs.

One way of testing this argument is by constructing a formal model of it and seeing whether its conclusions follow from its premises. We assume the existence of a monarch (actor '1') and a collection of taxpayers. Assuming, for purposes of simplicity, that the taxpayers are similar in critical respects, we will label them actor '2'. The monarch derives revenues and prefers some policies over others. The monarch's most preferred policy we label V^+ . The more revenues he possesses and the closer his government's policy position (V) to his ideal point, the greater his satisfaction. We assume the monarch to be rational; he therefore chooses that tax rate, t , and that policy position, V , which maximizes his utility (u^1).

The monarch is not an autonomous agent, however; he depends for his taxes upon the citizens. It is citizens who control the tax base. The citizens desire money, which they derive from the after-tax profits of their enterprises. And they too possess preferences with regard to public policies, their most preferred position being V^- . The greater their after-tax incomes, and the more government policies (V) approximate their policy preferences, the happier they are. Given the monarch's choice of a tax rate and government policy position, and given market prices for inputs and products, the citizens then choose the level of capital (K) and labor (L) which maximize their utility

(u^2).

We assume that at the outset the monarch's and citizens' choices rest in political-economic equilibrium. The problem then is: given an exogenous shock -- such as a war -- which leads to a need for greater taxes, and given the monarch's desire to remain in political-economic equilibrium (i.e. that that u^2 remain $\geq \bar{u}^2$), how are taxes likely to be raised?

The problem we are analyzing, then, is the behavior of a game. There are two maximizing agents, a monarch and a citizenry. At one level, their goals conflict; they conflict over policy and the apportionment of the national product between the private sector and the fisc. But at another level, the two depend upon each other. The government determines policies, which the citizens care about; and the citizens determine the magnitude of the product which constitutes the monarch's tax base.

The model can be outlined as follows:

The monarch:

$$\max_{(t, V)} u^1 = u^1((t)f(K, L), -(V - V^+)^2)$$

such that $u^2 \geq \bar{u}^2$.

The producer:

$$\max_{(K, L)} u^2 = u^2((1 - t)f(K, L) - rK - wL, -(V - V^-)^2)$$

Where:

$$V \in [V^-, V^+]$$

u^1 = the utility of the monarch

u^2 = the utility of the citizens

\bar{u}^2 = the utility of the citizens at the moment of political economic equilibrium

V = the policy of the government

V^+ = the monarch's preferred policy position

V^- = the citizens' preferred policy position

K = capital

L = labor

r = the price of capital

w = the price of labor

$f(K, L)$ = the output generated from capital and labor.

The other variables are labeled in the text. Critical limiting assumptions are clearly set out in the appendix.

Let η stand for the elasticity of supply of a given component of the tax base -- an industry, for example. It can be assumed that the more mobile the factors of production employed in an industry, the greater the elasticity of the production of output from that industry. We can then show that in choosing an optimum tax rate -- i.e. one that maximizes his utility -- the monarch will choose a t which possesses the following property:

$$\frac{\partial t}{\partial \eta} < 0$$

[see appendix]

That is, the monarch will impose higher taxes on those sectors of the economy which are less elastic, i.e. which possess the less mobile factors.

But within the set of optimal taxes we also find that:

$$\frac{\partial(V-V^-)}{\partial t} < 0$$

and

$$\frac{\partial^2(V-V^-)}{\partial t \partial \eta} < 0$$

[see appendix]

That is, in efforts to maximize his utility, the monarch, behaving rationally, will trade off concessions in policies for increases in the tax rate. Moreover, the monarch will do this to a greater degree the higher the elasticity of the tax base. The implication of both findings is clear: Those sectors which possess more mobile factors will have greater control over public policy.²³

SOME WISE MEN

It is interesting to turn to the writings of others who have thought about the linkages between taxation and representation. Among them would be Montesquieu; the Physiocratic writers, Quesney and Mirabeau; and Albert Hirschman, whose work has done so much to revive the interest of contemporary political economists in these earlier

writers and whose noted essay, Exit, Voice, and Loyalty arrives at conclusions strikingly at variance with our own.

Montesquieu

As Hirschman's review of Montesquieu in his The Passions and the Interests suggests, Montesquieu was convinced that the rise of commerce generated desirable political consequences. As Montesquieu wrote, "it is almost a general rule that wherever the ways of men are gentle . . . there is commerce; and wherever there is commerce, the ways of men are gentle."²⁴ Commerce promotes peace, Montesquieu held; and it also promotes the reduction of the arbitrary use of state power. In particular, the increased mobility of assets, Montesquieu argued, engendered restraint on the part of monarchs. Writing of the invention of the letter of credit, Montesquieu stated:

through this means commerce could elude violence . . .; for the richest trader had only invisible wealth which could be sent everywhere without leaving any trace. . . . Since that time, the rulers have been compelled to govern with greater wisdom than they themselves have intended. . . .²⁵

Quesnay and Mirabeau

In their Philosophie Rurale, the great Physiocrats, Quesnay and Mirabeau, also commented on the political consequences of the rise of commerce. Their conclusion bears a strong similarity to our own:

All the possessions [of commercial societies] consist . . .

of scattered and secret securities, a few warehouses, and passive and active debts, whose true owners are to some extent unknown, since no one knows which of them are paid and which of them are owing. No wealth which is immaterial is kept in peoples' pockets can ever be got hold of by the sovereign power, and consequently will yield it nothing at all. . . . The wealthy merchant, trader, banker, etc., will always be a member of a republic. In whatever place he may live, he will always enjoy the immunity which is inherent in the scattered and unknown character of his property. . . . It would be useless for the authorities to try to force him to fulfill the duties of a subject: they are obliged, in order to induce him to fit in with their plans, to treat him a master, and to make it worth his while to contribute voluntarily to the public revenue.²⁶

Albert Hirschman

It is from Hirschman's own studies that the above quotations are drawn. But what of his own theorizing?

In the model which he presents in Exit, Voice and Loyalty, Hirschman argues that an asset owner under adverse economic conditions possesses two alternatives: to exit from the market or to "give voice," i.e. to remain in the market but to alter conditions within it through political action.²⁷ One reason for remaining in the market is loyalty; loyal consumers of 'widgets,' for example, will purchase them even in periods of declining quality while lobbying the management to

rectify defects. Another is the cost of mobility. Given high opportunity costs of switching, the asset may be inelastically consumed, even in periods of declining quality, or inelastically supplied, even while facing declining prices. Workers, for example, may be too old to leave a declining industry or skills and capital may be too specialized to switch costlessly to other sectors.

By Hirschman's reasoning, then, we should predict that the owners of immobile factors will take the political initiative; they will give voice and express their preferences in arenas other than the market. Our model predicts the opposite.

There are two basic reasons for the contrasting results. One is that we allow tradeoffs along two dimensions: policies and income. Increased exactions in one may be compensated for by increased indulgences in another. Secondly, Hirschman looks only at one side of the bargain; as a result, he fails to analyze the potential for strategy. In the context of the tax problem, for example, he analyzes the behavior of only the supplier of taxes; the behavior of the "demander," i.e. the monarch, is ignored. But obviously both sides belong in the model; and knowing that the holders of taxable assets can exit, the demanders of taxes would surely take into account the potential for that behavior in calculating their best revenue strategy. Both reasons come into play in generating the divergence between Hirschman's conclusions and our own. For the capacity for strategic calculations by maximizing monarchs results in the owners of mobile factors which the monarch seeks to tax being compensated along

the second dimension, i.e. being given greater voice over the policy choices of governments.

Surely in politics, even if not in markets, a model which incorporates strategic behavior is to be preferred. For this reason, we prefer our reasoning to Hirschman's.

EXTENSIONS

Thus far we have explored the formal properties of our argument, related it to the arguments of others, and defended it against a well-known alternative. The seminal materials for the argument were historical: States seeking taxes developed forms of political representation as markets grew, and groups which possessed the most mobile factors -- traders and capitalists -- gained control over policy. What of the ability of the model to illuminate behavior which emerges in seemingly unrelated fields?

Urban Politics

In the contemporary period, the study of urban politics was spawned by the famous debates between Hunter and Dahl.²⁸ Hunter measured reputations for power and concluded that business dominated urban decision making. Dahl measured power in terms of who actually took part in policy decisions and he concluded that bureaucrats, civic groups and politicians were at least as powerful as businessmen. Indeed, he argued, businessmen appeared largely to have withdrawn from urban politics, save with respect to issues which were of immediate economic consequence. Those who believed in "Marxist" interpretations

of American politics rallied behind Hunter; the pluralists endorsed Dahl.

A third position remained: Was it not possible that the interests of a group, such as business, could be powerful, even though businessmen themselves did not take part in actual decision making? This possibility represented the persuasive core of the notion of "non-decisions" propounded by Baratz and Bachrach.²⁹ It was investigated by Crenson in his study of industrial regulation by municipalities.³⁰

Crenson found very little relationship between the participation of industry in the public domain and the policy choices of municipalities; rather, it was the threat of industrial defection -- relocation by industries to other, more favorable jurisdictions -- which influenced policy choices. Crenson's fundamental insight -- that markets do not correspond to jurisdictions and that the threat of market defection places limits on municipal policy making -- was later elaborated by Paul Peterson into a border theory of urban politics and published in a book entitled, aptly enough, City Limits.³¹

Developing Areas

Mentioned at the outset were the works of Lipset, Coleman and others who explored the relationship between development and democracy. Among the major critics of these works stand the contemporary political economists, many of whom are Marxists. Their principal criticism is that development leads to the capture of public policy by international capital and the subordination of other

interests to the interests of this fraction.

Some see international capital as being coercive; through repression, they argue, it secures favorable economic conditions in third world nations.³² Others, while not endorsing the thesis of coercion, nonetheless stress the capacity of international capital to dictate policy choices to third world governments.³³ Arrayed against these analysts are others who posit the relative "autonomy of the political" and stress the ability of political leaders and bureaucratic elites in third world countries to pursue public interests independent of the economic interests of international capital.³⁴

The reasoning advanced in this article would suggest the value of a synthesis between last two positions. As the specification of our model suggests, we too posit the autonomy of the political and resist reducing the government to an agent of economic interests. The government's interests stand autonomous of, and partially contradictory to, those of the private sector. But we also treat the political sector as dependent and its policies as conditioned by the need to anticipate the market response of economic agents. In the context of the world economy, the most effective market response would be to move assets to other, more favorable jurisdictions. And an implication of our analysis is that it is therefore possible for international capital, as opposed to national capital, farming, or labor, to gain control of public policy in third world nations.

Our approach therefore most closely parallels that of Cardoso,

who, while rejecting the notion that international capital is unproductive (i.e. that it produces underdevelopment) or inherently repressive, nonetheless underscores its role in placing limits upon the policy choices of third world governments.³⁵ While not seizing power nor being conferred political representation in the upper reaches of government, international capital may nonetheless be able to exercise disproportionate influence over government policy. Being mobile, it can defect.

Our analysis therefore finds a range of applications far distant in place and time from medieval Europe. It would appear, then, to be quite general.

CONCLUSION

In this article, we have proposed a model which represents the relationship between economic actors and revenue seeking governments. Given a need for revenues, the model predicts the allocation of the new tax burden and patterns of control over public policy.

The model was motivated by the history of the rise of parliaments in Western Europe. It was designed to employ "neo-classical" economic techniques to explore themes which have been developed most clearly in Marxist writings. It has been extended to the realm of urban and developmental politics. Within these literatures, it has focused most centrally on the problem of democracy.

Most importantly, the model suggests the way in which, given a need for revenues, specific fractions of the private sector can gain

control over public policy. And it characterizes precisely the factors which yield differences in the ability of economic agents to employ the market to defect from the tax-levying state. The analysis thus gives insight into both the origins and the limitations of political democracy.

APPENDIX

As described in the text, the problem may be written in the following form:

(i) Producers, given t and V , choose K and L to maximize

$$u^2((1-t)f(K,L) - rK - wL, -(V - V^-)^2).$$

The solution of this maximization problem can be characterized as

$$K^*(t,V), L^*(t,V).$$

(ii) Government, knowing $K^*(t,V)$ and $L^*(t,V)$, then chooses t and V to maximize

$$u^1(tf(K^*,L^*), -(V - V^+)^2)$$

such that

$$u^2((1-t)f(K^*,L^*) - rK^* - wL^*, -(V - V^-)^2) \geq u^2.$$

Before deriving the results, some assumptions are imposed:

(A1) $u_1^1 > 0$, $u_1^2 > 0$, $u_2^1 > 0$, $u_2^2 > 0$. Also, both u^1 and u^2 are quasi-concave functions.

(A2) $f(K,L)$ is a quasi-concave function.

(A3) $\max_{K,L} u^2((1-t)f(K,L) - rK - wL, -(V^+ - V^-)^2) < u^2$, $\forall t \in [0,1]$.

Now, the first order conditions for the producers' problem are:

$$(1-t)f_K = r, (1-t)f_L = w.$$

Therefore, the government's problem can be rewritten as:

$$\begin{aligned} \max_{t, V, K, L} \quad & u^1(tf(K, L), -(V - V^+)^2) + \lambda_1[(1 - t)f_K - r] \\ & + \lambda_2[(1 - t)f_L - w] + \mu(u^2 - \bar{u}^2). \end{aligned}$$

The first-order conditions, then are:

$$u_1^1 f(K, L) - \lambda_1 f_K - \lambda_2 f_L + \mu[-f(KL)u_1^2] = 0 \quad (1)$$

$$-2(V - V^+)u_2^1 + \mu u_2^2(-2(V - V^-)) = 0 \quad (2)$$

$$tu_1^1 f_K + \lambda_1(1 - t)f_{KK} + \lambda_2(1 - t)f_{KL} + \mu u_1^2[(1 - t)f_K - r] = 0 \quad (3)$$

$$tu_1^1 f_L + \lambda_1(1 - t)f_{KL} + \lambda_2(1 - t)f_{LL} + \mu u_1^2[(1 - t)f_L - w] = 0 \quad (4)$$

$$(1 - t)f_K = r \quad (5)$$

$$(1 - t)f_L = w \quad (6)$$

$$\mu(u^2 - \bar{u}^2) = 0, \quad \mu \geq 0, \quad u^2 \geq \bar{u}^2 \quad (7)$$

Substitute equations (5) and (6) into equations (3) and (4), respectively. Then, by Cramer's rule, we can solve for λ_1 and λ_2 as follows:

$$\begin{bmatrix} \lambda_1 \\ \lambda_2 \end{bmatrix} = \frac{-u_1^1 t}{(1 - t)(f_{KK}f_{LL} - f_{KL}^2)} \begin{bmatrix} f_K f_{LL} - f_L f_{KL} \\ -f_K f_{KL} + f_L f_{KK} \end{bmatrix}. \quad (8)$$

Substituting (8) into (1), after algebraic manipulations, we have

$$u_1^1 \cdot \left[1 - \frac{t\eta}{1 - t}\right] = \mu u_1^2 \quad (9)$$

where η is the supply elasticity such that

$$\eta = \frac{-f_K^2 f_{LL} + 2f_K f_L f_{KL} - f_L^2 f_{KK}}{f(f_{KK}f_{LL} - f_{KL}^2)}. \quad (10)$$

Lemma 1. $t < \frac{1}{1 + \eta}$.

Proof: By A1 and A3, we know $\mu \neq 0$, $u_1^1, u_1^2 > 0$. Hence equation (9) implies $1 - \frac{t\eta}{1 - t} > 0 \rightarrow t\eta < 1 - t \rightarrow t < \frac{1}{1 + \eta}$.

Lemma 2. $\frac{\partial(V - V^-)}{\partial t} < 0$ along the optimal solutions path.

Proof: Since $\mu \neq 0$, hence along the optimal solutions path, $u^2 = \bar{u}^2$.

By taking the total derivative, we thus have

$$-u_1^2 f(K, L) dt - 2(V - V^-)u_2^2 d(V - V^-) = 0$$

$$\rightarrow \frac{\partial(V - V^-)}{\partial t} = \frac{-u_1^2 f(K, L)}{2(V - V^-)u_2^2} < 0.$$

To proceed further, two additional assumptions are imposed:

(A4) $u^1(\cdot, \cdot) = tK^\alpha L^\beta - \log(V - V^+)^2$ where $\alpha + \beta < 1$

(A5) $u^2(\cdot, \cdot) = (1 - t)[K^\alpha L^\beta - rK - wL] - \log(V - V^-)^2$.

Lemma 3. $\frac{\partial t}{\partial \eta} < 0$.

Proof: Under (A4) and (A5), equation (9) is reduced to

$$1 - \frac{t\eta}{1 - t} = \mu. \quad (11)$$

On the other hand, equation (2) implies

$$-2(V - V^+) \frac{1}{(V - V^+)^2} + \mu[-2(V - V^-)] \frac{1}{(V - V^-)^2} = 0$$

$$\rightarrow V - V^- = \frac{\mu}{1 + \mu} (V^+ - V^-) = \frac{1 - t - t\eta}{2 - 2t - t\eta} (V^+ - V^-),$$

by (11). (12)

$$\text{Hence, } \frac{\partial(V - V^-)}{\partial t} = \frac{-\eta}{(2 - 2t - t\eta)^2} (V^+ - V^-). \quad (13)$$

Also, Lemma 2 claims

$$\frac{\partial(V - V^-)}{\partial t} = -\frac{1}{2}f(K,L)(V - V^-) = -\frac{1}{2}f(K,L) \frac{1 - t - t\eta}{2 - 2t - t\eta} (V^+ - V^-). \quad (14)$$

Comparing equation (13) to equation (14), we have

$$\frac{\eta}{2 - 2t - t\eta} = \frac{1}{2}(1 - t - t\eta)f(K,L). \quad (15)$$

By taking the total derivative, we have

$$\left[\frac{\eta(2 + \eta)}{(2 - 2t - t\eta)^2} + \frac{1}{2}(1 + \eta)f(K,L) \right] dt = \left[-\frac{t}{2}f(K,L) - \frac{t\eta}{2} \frac{\partial f(K,L)}{\partial \eta} - \frac{2 - 2t}{(2 - 2t - t\eta)^2} \right] d\eta.$$

Hence, $\frac{\partial t}{\partial \eta} < 0$.

Lemma 4. At any fixed t , $\frac{\partial^2(V - V^-)}{\partial t \partial \eta} < 0$.

Proof: By taking the partial derivative with respect to equation

(13),

$$\frac{\partial^2(V - V^-)}{\partial t \partial \eta} = \frac{2 - 2t + t\eta}{-(2 - 2t - t\eta)^3} (V^+ - V^-) < 0.$$

NOTES

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1. See as well Charles Lindbloom, "The Market as Prison," The Journal of Politics and Markets 44, no. 2 (May 1982): 324-36 and Politics and Markets (New York: Basic Books, 1977).
 2. See, for example, Margaret Levi, "The Predatory Theory of Rule," Politics and Society 10, no. 4 (1981): 431-65. Douglass C. North, Structure and Change in Economic History (New York: W. W. Norton and Company, 1981). Further references to Levi's work are given below.
 3. Karl Marx, Grundrisse: Foundations of the Critique of Political Economy (Harmondsworth, England: Penguin Books, 1981). See also Frederick Engels, The Origin of the Family, Private Property and the State (New York: International Publishers, 1972); Ralph Miliband, Marxism and Politics (New York: Oxford University Press, 1977); Perry Anderson, Lineages of the Absolutist State (London: New Left Books, 1974); and B. Hindess, "Marxism and Parliamentary Democracy," in Marxism and Democracy, ed. A. Hunt (London: Lawrence and Wishart, 1980).
 4. Seymour Martin Lipset, "Some Social Requisites of Democracy: Economic Development and Political Legitimacy," American Political Science Review 53 (March 1959): 69-105. See also

- James Coleman's concluding essay in Gabriel A. Almond and James S. Coleman, The Politics of the Developing Areas (Princeton: Princeton University Press, 1960) and Donald J. McCrone and Charles F. Cnudde, "Toward a Communications Theory of Democratic Political Development: A Causal Model," American Political Science Review 61 (March 1967): 72-79. See also the critique in Samuel P. Huntington, Political Order in Changing Societies (New Haven and London: Yale University Press, 1968).
5. Michael Prestwich, War, Politics and Finance Under Edward I (London: Faber and Faber Limited, 1972), p. 13.
 6. Ibid., p. 18. See also J. G. Edwards, "The Personnel of the Commons in Parliament Under Edward I and Edward II," in Essays in Medieval History Presented to Thomas Frederick Tout, ed. Andrew G. Little and Frederick M. Powicke (Manchester: Books for Libraries Press, 1967), pp. 197-214; Albert F. Pollard, The Evolution of Parliament (London: Longman, Green and Co., 1926); and May McKisack The Parliamentary Representation of the English Boroughs During the Middle Ages (London: Frank Cass, 1932).
 7. John Bell Henneman, Royal Taxation in Fourteenth Century France: The Development of War Financing 1322-1356 (Princeton: Princeton University Press, 1971), p. 22.
 8. Ibid., p. vii.
 9. Aristide R. Zolberg, "Strategic Interactions and the Formation of

Modern States: France and England," International Social Science Journal 32, no. 4 (1980): 695.

10. Ibid.
11. Zolberg also stresses the importance of the French monarch's need to maintain a standing army; Britain's strategic position enabled it to rely upon naval forces, which could not be turned inward, as it were.

An important related issue which we do not examine in this paper is the taxation of the wool trade in England. See, for example, T. H. Lloyd, The English Wool Trade in the Middle Ages (Cambridge: Cambridge University Press, 1977) and P. J. Bowden, The Wool Trade in Tudor and Stuart England (London: Macmillan and Company, 1962).
12. James Field Willard, Parliamentary Taxes on Personal Property 1290 to 1334: A Study in Medieval English Feudal Administration (Cambridge, MA: The Medieval Academy of America, 1934), p. 3.
13. Sydney Knox Mitchell, Taxation in Medieval England (New Haven: Yale University Press, 1951), p. 6.
14. Joseph R. Strayer, "Introduction," in The English Government at Work, 1327-1336, ed. William A. Morris and Joseph R. Strayer (Cambridge, MA: The Medieval Academy of America, 1947), p. 8. Note also that Prestwich concludes:

Taxes on moveables had been developed into an essential financial expedient. The attempts to make use of tallage and a feudal aid in the last years of the reign had shown that there was little future in prerogative forms of taxation. It was clear that the consent and goodwill of the community of the realm was essential if adequate supplies of funds were to be forthcoming, and the importance of Edward's financial expedients in promoting a system of parliamentary representation is self evident (Prestwich, War, pp. 222-23).

15. Henneman, Royal Taxation, pp. 25-26.
16. Ibid., p. 169.
17. Ibid., p. 166.
18. See also the important pieces, Margaret Levi, "Towards a Theory of Rule and Revenue Production: The Fiscal Basis of the Early Modern State of France and Britain," manuscript, April 1983; and William Brustein and Margaret Levi, "Rulers, Rebels and Regions, 1500-1700," paper presented at the annual meetings of the Public Choice Society, Atlanta, March 1983. See also Joseph Schumpeter, "The Crisis of the Tax State," in International Economic Papers ed. A. Peacock et. al. (New York: Macmillian, 1954) and Otto Hintze, "The Formation of the State and Constitutional Development: A Study in History and Politics," in The Historical Essays of Otto Hintze, ed. Felix Silbert (New York: Oxford

University Press, 1955).

19. Thus Henneman notes: "The brief memorandum submitted to the King in 1339 certainly suggests that the government would have preferred to negotiate taxes with assemblies rather than doing so locally (Henneman, Royal Taxation, p. 326)."
20. Ibid., p. 319.
21. The enforcement of agreements also imposed costs on monarchs. They therefore demanded that those with whom they negotiated be in a position to make commitments which were binding. Thus, again and again, scholars note that monarchs, in calling for representative assemblies, demanded that the delegates who were sent to negotiate taxes be fully empowered to make binding pledges. See, for example, Henneman, Royal Taxation, pp. 167ff; Prestwich, War, pp. 179ff; and Morris and Strayer, The English Government, passim.
22. Mitchell, Taxation, p. 163. The argument thus far covers the taxation of all similarly situated agents--all members of a common trade or occupation, etc. Insofar as the spread and completion of markets led to the broader mobility of assets, then the span of the binding agreements could be expected to broaden. The movement of tax negotiations to the level of the great council in England (Mitchell, Taxation, pp. 206ff) and the establishment of national tax rates as opposed to ones for

locales (Willard, Parliamentary Taxes, pp. 65ff) suggest the operation of such forces. Their slower operation in France suggests the slower evolution of national markets there. See also David Friedman, "A Theory of the Size and Shape of Nations," Journal of Political Economy 85 (February 1977): 59-77.

23. As can be seen in the specification of the model, the validity of these assertions depends upon the assumption of private rights in property.

In this connection, it is notable that medieval monarchs clearly did not confer influence over policy to foreigners, such as Italians or Jews. Being foreigners, these groups lacked secure property rights and thus the "leverage" achieved by other groups who controlled taxable assets.

In constructing the model, we have represented the preferences of the monarch as diverging from those of the taxpayer; in this way, we have been able to explore the impact of bargaining. Were the case degenerate--i.e. were V^+ precisely equal to V^- --then the monarch would simply become an agent of the private interests for purposes of policy making. The model would then represent the classic instrumentalist-Marxist theory of the state and taxation would represent the financing of a government which supplies policies which embody the interests of the privileged classes.

24. Quoted in Albert O. Hirschman, The Passions and the Interests: Political Arguments for Capitalism Before Its Triumph (Princeton:

Princeton University Press, 1977), p. 60.

25. Ibid., pp. 72-73.
26. Ibid., pp. 94-95.
27. Albert O. Hirschman, Exit, Voice and Loyalty: Response to Decline in Firms, Organizations, and States (Cambridge, MA: Harvard University Press, 1970).
28. Floyd Hunter, Community Power Structure (Chapel Hill: University of North Carolina Press, 1953); Robert Dahl, Who Governs? (New Haven and London: Yale University Press, 1961).
29. Peter Bachrach and Morton S. Baratz, "Two Faces of Power," American Political Science Review 56 (1962): 947-52.
30. Matthew Crenson, The Un-Politics of Air Pollution (Baltimore, MD: Johns Hopkins University Press, 1971).
31. Paul E. Peterson, City Limits (Chicago and London: The University of Chicago Press, 1981).
32. See, for example, Guillermo A. O'Donnell, Modernization and Bureaucratic Authoritarianism (Berkeley: Institute of International Studies, University of California, 1973).
33. For a review of the materials on international corporations and their impact on developing societies, see Peter Evans, "Recent Research on Multinational Corporations," Annual Review of

Sociology 7 (1981): 199-223.

34. A vigorous statement of this position is Mike Warren, "Imperialism and Capitalist Industrialization," New Left Review 81 (September - October 1973): 3-44.
35. Fernando H. Cardoso, "Associated Dependent Development: Theoretical and Practical Implications," in Authoritarian Brazil, ed. Alfred Stepan (New Haven and London: Yale University Press, 1973), pp. 142-76.

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