# Chapter 3

# A Neoclassical Theory of the State*

## I

The existence of a state is essential for economic growth; the state, however, is the source of man-made economic decline. This paradox should make the study of the state central to economic history: models of the state should be an explicit part of any analysis of secular changes. But while the long path of historical research is strewn with the bones of theories of the state developed by historians and political scientists, economists traditionally have given little attention to the issue.

Recently, however, modern extensions of neoclassical economic theory, which have proven to be powerful tools of analysis, have been applied to a variety of political issues.[1] Neoclassical theory conceived of as a theory of choice has provided at the very least a disciplined and logically consistent approach to a study of the state. This theory offers the promise of developing refutable propositions about nonmarket decision making. In addition, research into economic organization has revealed its close kinship

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[1] See Baumol (1962); Buchanan and Tullock (1962); Downs (1957); Niskanen (1971); Breton (1974).





with political organization. A satisfactory theory of the firm would contribute immensely to the development of a theory of the state.[2]

We must, of course, be cautious about the limits of neoclassical theory. Public choice theory—economics applied to politics—has at best had only a modest success in explaining political decision making. Interest group politics cannot effectively explain voting behavior; ideological considerations appear to account for a great many political and judicial decisions.[3] Further, the questions that must be asked are at a different level than the day-to-day political decision-making process. For the economic historian, the key problems are to explain the kind of property rights that come to be specified and enforced by the state and to explain the effectiveness of enforcement; the most interesting challenge is to account for changes in the structure and enforcement of property rights over time.

## II

At the outset one is posed with the problem of defining precisely what a state is. Where, for example, does the medieval manor belong on the continuum from the voluntary organization to the state? For the purposes of this work, a state is an organization with a comparative advantage in violence, extending over a geographic area whose boundaries are determined by its power to tax constituents. The essence of property rights is the right to exclude, and an organization which has a comparative advantage in violence is in the position to specify and enforce property rights. In contrast to the theories frequently advanced in the literature of political science, sociology, and anthropology, here the key to understanding the state involves the potential use of violence to gain control over resources. One cannot develop a useful analysis of the state divorced from property rights.[4]

Two general types of explanation for the state exist: a contract theory and a predatory or exploitation theory. Contract theories of the state have a long history. Recently they have

[2] See Coase (1937); Alchian and Demsetz (1972).

[3] See North (1978).

[4] In an otherwise interesting analysis of the origins of the state Carniero (1970) fails to link the state with the establishment of property rights.

been resurrected by neoclassical economists because they are a logical extension of the theorem of exchange, in which the state plays the role of wealth maximizer for society. Because a contract limiting each individual's activity relative to others is essential for there to be economic growth, the contract theory approach offers an explanation for the development of efficient property rights that would promote economic growth.[5]

The predatory or exploitation theory of the state is held by a remarkably varied collection of social scientists, including Marxists (at least in their analysis of the capitalist state) and some neoclassical economists. This view considers the state to be the agency of a group or class; its function, to extract income from the rest of the constituents in the interest of that group or class. The predatory state would specify a set of property rights that maximized the revenue of the group in power, regardless of its impact on the wealth of the society as a whole.

The contract approach may explain why the state potentially can provide a framework for economizing on the use of resources and therefore can promote wealth. As both the third party to every contract and the ultimate source of coercion, however, the state becomes the field on which the battle for control of its decision-making power is fought. All sides wish to be able to redistribute wealth and income in the interest of their own group. While the contract theory explains the gains of initial contracting but not the subsequent maximizing behavior of constituents with diverse interests, the predatory theory ignores the initial gains of contracting and focuses on the extraction of rents from constituents by those who gain control of the state. Nevertheless, the two theories are not inconsistent. It is the distribution of "violence potential" that reconciles them. The contract theory assumes an equal distribution of violence potential amongst the principals. The predatory theory assumes an unequal distribution.

Property rights that produce sustained economic growth have seldom held sway throughout history, but even the most casual survey of the human experience makes clear that there have been political-economic units that achieved substantial economic growth for long periods of time. By sustained economic growth I mean that output has grown at a more rapid rate than population. This phenomenon is not confined to the two hundred years since the Industrial Revolution. There was an immense accumulation of wealth between the development of agriculture in the eighth millennium B.C. and the *Pax Romana* of the first two centuries A.D. It is true that during those centuries whole civilizations declined and disappeared, but there were also civilizations that experienced economic growth for lengthy periods in Mesopotamia, Egypt, Greece, Rhodes, and, of course, the Roman Republic and Empire. There is nothing new about sustained economic growth, then, despite the myth perpetrated by economic historians that it is a creation of the Industrial Revolution. Nor is there anything more inevitable than the ultimate economic decline of political-economic units.

[5] The most careful analysis is that of Umbeck (forthcoming).



In this chapter I shall develop a simple model of the state in order to explain two aspects that are fundamental to economic history: the widespread tendency of states to produce inefficient property rights and hence fail to achieve sustained growth; and the inherent instability of all states, which leads to economic change and ultimately to economic decline. Initially the model examines a state with a single ruler. However, I shall also explore the tension between ruler and constituents which leads to the dilution of the ruler's control and the emergence of political pluralism. The study of legitimacy and alienation will be deferred until chapter 5.[6]

This model of the state with a wealth- or utility-maximizing ruler has three essential characteristics. One specifies the exchange process between ruler and constituents; the other two specify the conditions that will determine the terms of exchange.

First, the state trades a group of services, which we shall call protection and justice, for revenue. Since there are economies of scale in providing these services, total income in the society is higher as a result of an organization specializing in these services than it would be if each individual in society protected his own property.

Second, the state attempts to act like a discriminating monopolist, separating each group of constituents and devising property rights for each so as to maximize state revenue.

Third, the state is constrained by the opportunity cost of its constituents since there always exist potential rivals to provide the same set of services. The rivals are other states, as well as individuals within the existing political-economic unit who are

[6] I also neglect in this chapter the impact of state policies on fertility and mortality.

potential rulers. The degree of monopoly power of the ruler, therefore, is a function of the closeness of substitutes for the various groups of constituents.

By exploring in more depth these three hypotheses, we may not only put flesh on the bare bones of the model but also draw out some useful implications for the economic historian.

## *III*

The basic services that the state provides are the underlying rules of the game. Whether evolving as a body of unwritten customs (as in the feudal manor) or as a written constitution, they have two objectives: one, to specify the fundamental rules of competition and cooperation which will provide a structure of property rights (that is, specify the ownership structure in both factor and product markets) for maximizing the rents accruing to the ruler; two, within the framework of the first objective, to reduce transaction costs in order to foster maximum output of the society and, therefore, increase tax revenues accruing to the state. This second objective will result in the provision of a set of public (or semi-public) goods and services designed to lower the cost of specifying, negotiating, and enforcing contracts which underlie economic exchange. The economies of scale associated with devising a system of law, justice, and defense are the basic underlying source of civilization; and the creation of the state in the millennia following the first economic revolution was the necessary condition for all subsequent economic development. While the ten millennia since the creation of settled agriculture appear in historical retrospect as an endless saga of war and of butchery, exploitation (however defined), enslavement, and mass murder, most often done by the state ruler or his agents, it is still essential to stress the necessity of a state for economic progress. Throughout history, individuals given a choice between a state—however exploitative it might be—and anarchy, have decided for the former. Almost any set of rules is better than none, and it is not in the ruler's interest to make the rules so unpalatable that initiative is stifled.

There are three important implications of these objectives.

1. Put together, the two are not completely consistent. The second objective implies a completely efficient set of property rights to maximize societal output; the first attempts to specify



a set of fundamental rules that will enable the ruler to maximize his own income (or, if we wish to relax the assumption of a single ruler, to maximize the monopoly rents of the group or class of which the ruler is the agent). From the redistributive societies of ancient Egyptian dynasties through the slavery system of the Greek and Roman world to the medieval manor, there was persistent tension between the ownership structure which maximized the rents to the ruler (and his group) and an efficient system that reduced transaction costs and encouraged economic growth. This fundamental dichotomy is the root cause of the failure of societies to experience sustained economic growth and I shall explore it more precisely later in this chapter.

2. The creation of an infrastructure designed to specify and enforce a body of property rights entails the delegation of power to agents of the ruler. Since the utility function of the agents is not identical with that of the ruler, the ruler will specify a group of rules to attempt to enforce conduct by his agent that will be consistent with his own objectives.[7] There will be, however, a diffusion of the powers of the ruler to the degree that the agents are not perfectly constrained by the rules. The effect will also be a reduction in the monopoly rents of the ruler. We can predict the structure of this bureaucracy by exploring the transaction costs of the several parts of the economy.

3. The services provided by the ruler have differently shaped supply curves. While some services are pure public goods, others have typical U-shaped cost curves reflecting rising average costs beyond some range of output. The cost curve of protection would be relative to the state of military technology and would specify the size of the political-economic unit as "efficient" when the marginal cost of protection was equal to the incremental tax revenue. From the Greek city-state to the Roman Empire to the small decentralized political organization of the feudal era to the nation state, military technology and changes in military technology have played a major role in shaping the supply curve.[8]

[7] For a further discussion of agency theory see Jensen and Meckling (1975).

[8] One of the most neglected parts of economic history is the study of military technology in relationship to the size of states. While there is an immense literature on military technology itself, it has seldom been explored in terms of its implications for political structure. For an exeeption to this indictment see Bean (1973).

Two partial theories that have been advanced to account for the varying size of the state are consistent with the above stated marginal conditions. Wittfogel's hydraulic society (1957) was in effect a natural monopoly, with economies of scale derived from the indivisibility of an integrated water system. Friedman's theory of the size and shape of nations (1977) explores the relationship between the type of revenue and the size and shape of nations, arguing that if trade is the major political revenue source the result should be a large nation; that rent should imply small nations; and that labor should imply that nations will have closed boundaries or be culturally homogeneous.

## *IV*

The economy consists of a diverse group of activities with varying production functions reflecting the technology, resource base, and population of the political-economic unit. The ruler will specify a set of property rights designed to maximize his monopoly rents for each separable part of the economy by monitoring and metering the inputs and outputs of each. The costs of measuring the dimensions of the inputs and outputs will dictate the various property rights structure for the diverse sectors of the economy, which therefore will be dependent on the state of the technology of measurement. Common property resources have persisted where the costs of measuring the dimensions of the resources have outweighed the benefits. The development of standardized weights and measurements is almost as old as government and has typically been fostered by the state. Standardization performs the function of lowering transaction costs and of allowing the ruler to extract the maximum amount of rent. The higher the cost of measurement of the multiple dimension of a good or service, the greater the dissipation of rent.[9]

Some of the historical forms of organization employed by the ruler include a loosely organized federal structure of local governors with their own bureaucracy; a centralized bureaucracy directly employed by the ruler; a bailiff system; and tax farming. Despite elaborate efforts at monitoring, in each of these organizational structures the agents of the ruler were imperfectly

[9] See Barzel (1974); Cheung (1974).



constrained, and their interests never completely coincided with the ruler's. The result typically was more or less dissipation of the monopoly rents of the rulers to the agents; in some cases there was collusion between agents and constituents to divide up some of the monopoly rents.

## *V*

The ruler always has rivals: competing states or potential rulers within his own state. The latter are analogous to the potential rivals to a monopolist.[10] Where there are no close substitutes, the existing ruler characteristically is a despot, a dictator, or an absolute monarch. The closer the substitutes, the fewer degrees of freedom the ruler possesses, and the greater the percentage of incremental income that will be retained by the constituents. The opportunity cost of each of the various constituents will be different and will dictate the bargaining power each group has in the specification of property rights, as well as the tax burden it will incur. Opportunity costs will also dictate allocation of services provided by the ruler to the degree that they are not pure public goods), since the ruler will provide greater services to those with close alternatives than to those with none.

Constituents may, at some cost, go over to a competing ruler (that is, another existing political-economic unit) or support a competitor for ruler within the existing state.[11] The former alternative depends upon the structure of competitive political units. The more geographically proximate ones of course have an advantage. The ruler's efforts to gain or keep constituents will be determined by the supply curve of protection and the marginal benefits to be derived from additional constituents.

The latter alternative depends upon the relative violence potential of competing constituents. The ruler's own agents may be able to organize opposition and attract supporters from among the constituents by offering a better division of the existing rents. However, other individuals with command over sufficient resources to acquire military capability (or in the feudal world, lords with existing military capability) are potential rivals.

[10] For an analysis of the monopoly case see Demsetz (1968).

[11] These two choices are roughly analogous to Hirschman's Exit and Voice. See Hirschman (1970).

## VI

The simple static model just described will give rise to two constraints on the ruler: a competitive constraint and a transaction cost constraint. Both typically produce inefficient property rights. Under the first, the ruler will avoid offending powerful constituents. If the wealth or income of groups with close access to alternative rulers is adversely affected by property rights, the ruler will be threatened. Accordingly, he will agree to a property rights structure favorable to those groups, regardless of its effects upon efficiency.

Efficient property rights may lead to higher income in the state but lower tax revenues for the ruler because of the transaction costs (monitoring, metering, and collecting such taxes) as compared to those of a more inefficient set of property rights. A ruler therefore frequently found it in his interests to grant a monopoly rather than property rights which would lead to more competitive conditions.

These two constraints together account for the wide spread of inefficient property rights. In effect, the property rights structure that will maximize rents to the ruler (or ruling class) is in conflict with that that would produce economic growth.[12] One variant of this is the Marxian notion of the contradictions of the mode of production, in which the ownership structure is incompatible with realizing the potential gain from an evolving set of technological changes. Economic growth is assured when the state behaves as specified in the contract case cited earlier (given reasonable assumptions about individual preferences with respect to savings and the number of children desired). Given the strictures in the foregoing model, however, it is clear that the pure contract case occurs only under the unusual circumstance that the ownership structure specified by the ruler is consistent with the kind of efficiency standards implied by neoclassical growth models (capitalism as described in the *Communist Manifesto*, for example). In effect, an ownership structure that provided

[12] Under the condition of zero transaction costs, the ruler could always devise first an efficient set of rules and then bargain for his rents, but this postulate from welfare economics simply ignores positive transaction costs, which is what the game is all about. Even the most casual observations from history and the contemporary world make clear that "inefficient" property rights are the rule, not the exception.



incentives for efficient resource allocation (that is, a set of property rights that made the private rate of return on innovation, investment in human capital, and so forth approach the social rate) would be essential. But we should note immediately that the consequences must be destabilizing, since technological change, the spread of more efficient markets, and so forth would alter relative prices and the opportunity cost of constituents and would lead eventually to conflicts with the fundamental ownership structure of property rights.

In short, the process of growth is inherently destabilizing to a state. I shall explore in the next section the adjustment process of a state to such changes.

If, however, growth is destabilizing, so is no growth, when a political-economic unit exists in a world of competing political-economic units. Relatively inefficient property rights threaten the survival of a state in the context of more efficient neighbors, and the ruler faces the choice of extinction or of modifying the fundamental ownership structure to enable the society to reduce transaction costs and raise the rate of growth. Again, however, we must note carefully that the ability to adjust assumes a single ruler and none of the complicating issues posed when there are multiple sources of decision making.[13]

Stagnant states can survive as long as there is no change in the opportunity cost of the constituents at home or in the relative strength of competitor states. This last condition usually implies that the state approaches the status of a monopoly and is surrounded by weak states (and there are no net gains to a ruler in acquiring these states).

## VII

The inherent instability of the state as outlined in the previous sections should be evident. Changes in information costs, technology, and population (or relative factor prices in general) are all obvious destabilizing influences. Also significant is the fact that the ruler is mortal.

A change in relative prices that improves the bargaining power of a group of constituents can lead to alteration of the rules

[13] Gerschenkron's relative backwardness hypothesis makes sense only in this context.

to give that group more income, or, alternatively, the constituents can force the ruler to give up some of his rule-making powers. Sometimes the emergence of "representative" government has come in the face of an external threat to the ruler. The transformation of the Greek city-state from monarchy to oligarchy to democracy (in the case of Athens) occurred as a consequence of a change in military technology (the development of the phalanx) which could only be accomplished with a citizen army; the price the ruler paid was the dilution of his rule-making powers. Similarly in early modern Europe, alterations in military technology (the pike, the longbow, and gunpowder) led in some instances to the delegation of rule-making powers to parliament or Estates General in return for the increased revenue needed for survival.

While changes in military technology were a major (though certainly not the sole) source of the growth of pluralist or representative government in the ancient and medieval world, the modern alterations in control of the state have been associated with the radical change in relative prices stemming from the Second Economic Revolution. The overwhelming dominance of agriculture in production in the Western world prior to the nineteenth century resulted in struggles to control the state being associated with the distribution of landed wealth and income (including the income from trade and shipping of agricultural and resource goods). With the Second Economic Revolution, the decline in the relative importance of land rent (and the landlord), the growth of manufacturing and services, the growing share of income going to labor, and in particular the growing importance of human capital have transformed the structure of production and created new interest groups; further, they are the basis of the struggle to control the state that has been going on in the past century.[14]

[14] The property rights and allocation implications of the rise of pluralism are explored elsewhere. Here I want simply to emphasize that whether constituents bargain with a ruler over property rights or gain some control over rule making power, the result may be the same as far as the efficiency or inefficiency of property rights is concerned and the argument advanced in section VI above still holds. I can make this point more forcefully by the following illustration. In the contemporary world there are immense differences in the control of the state as between the Soviet Union and the United States. The former is certainly close to my model of a single-ruler state; the latter is certainly a pluralist state. In the former, the bargaining over property rights takes place *within* the control structure; in the latter there is a ubiquitous struggle by interest groups to control the state. But I know of no a priori reason on the basis of *this difference alone* to predict the relative efficiency of property rights in one country or the other.



## VIII

Instability is one thing; the process by which change and adjustment take place is something else. Here the separation between the application of economic principles and the application of other social science and Marxist principles is important. The former principles are inspired by the adjustment process in markets. In this process, changes at the margin lead to instantaneous adjustment. In politics as well as in economics, adjustments will occur only as long as the private returns exceed private costs; otherwise, the free rider problem will prevent adjustment. This condition severely restricts the willingness of constituents to adjust; and while it helps to explain the persistence of inefficient property rights, it obviously cannot explain the action of large groups to alter the property rights structure when private returns are negligible or negative.

Theories originating in the other social sciences and Marxism, on the other hand, account for large group action to alter property rights but have not provided any convincing theoretical underpinning to account for the way by which the free rider problem is overcome.

This theoretical gap is a crucial problem in any explanation of secular change. Casual empiricism provides ample evidence that large groups have sometimes acted to alter the structure of the state; but without some model we are unable to predict when the free rider problem will preclude action and when it will not. The study of ideology and the development of some positive model on the free rider problem are essential preliminaries to formulating a dynamic theory of change in the state.

We should note also the implications of adhering strictly to a neoclassical approach where the free rider problem will prevent large group activity. These implications point up the explanatory power of this neoclassical model at the same time that they delineate its limitations, and in concluding this discussion I wish to dwell briefly on a number of them.

First, the free rider accounts for the stability of states throughout history. The costs to the individual of opposing the coercive forces of the state have traditionally resulted in apathy and acceptance of the state's rules, no matter how oppressive. An historical counterpart of the low voter turnout in many current democracies is the failure of individuals to act as classes and of

large groups to overthrow societies in the past. While the significance of this simple observation has not appeared to be properly appreciated in much of the literature on the state, it is amply (though inadvertently) attested to by the immense literature of Marxists on class consciousness, class solidarity, and ideology. Lenin and subsequent Marxist activists have been well aware of the very real problem that the free rider posed for Marxist theory and revolutionary practice.

Second, institutional innovation will come from rulers rather than constituents since the latter would always face the free rider problem. The ruler will, on his side, continue to innovate institutional change to adjust to changing relative prices since he has no free rider problem. Thus a change in the relative scarcity of land and labor which made labor scarcer would lead the ruler to innovate institutional changes to appropriate increased rents from labor. These innovations will be carried out as long as the opportunity costs of labor do not change (that is, there is no change in potential competition from other rulers).

Third, revolutions will be palace revolutions undertaken by the ruler's agents or by a competing ruler or small elite Leninist-type groups.

Fourth, where the ruler is the agent of a group or class, some rules for succession will be devised to minimize the opportunities for disruptive change or revolution upon the death of the ruler. As noted above, disruptive change or revolution will come most likely from the ruler's agents.

The foregoing four points help to explain a great deal about the stability of and the sources of changes in the structure of the state throughout history. Limiting one's analysis to instances where one could identify net private gains (in narrowly construed economic terms) to the actors, however, would put a fatal handicap on the study of structural change of the state. It is necessary to construct a theory of ideology to resolve the free rider dilemma.

# Chapter 4

# A Framework for Analyzing Economic Organization in History

## *I*

Throughout history economic activity has occurred by means of an immense variety of organizational forms. From the so-called redistributive societies of the Egyptian dynasties, to the patron-client relationship in Republican Rome, to the feudal manor, these organizational forms have been the subject of historical investigation; but most of the research has been devoid of analytical content.[1] Much the same criticism can be made of economists' work dealing with modern-day economic organization. In fact, as recently as 1968, the *International Encyclopedia of the Social Sciences* included no essay on the market, the most fundamental institution of modern Western economies and central to the performance of economies of the past, as well.

To account analytically for economic organization we must use a theory of transaction costs together with a theory of the state. A theory of transaction costs is necessary because under the ubiquitous condition of scarcity and therefore competition, more efficient forms of economic organization will replace less efficient forms under *ceteris paribus* conditions. The state, however—as I

[1] An exception is the work of Karl Polanyi. For a review of his contribution see North (1977).