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Author(s): Barry R. Weingast and William J. Marshall

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The Industrial Organization of Congress; or, Why Legislatures, Like Firms, Are Not Organized as Markets

Barry R. Weingast

Stanford University

William J. Marshall

Goldman, Sachs and Company

This paper provides a theory of legislative institutions that parallels the theory of the firm and the theory of contractual institutions. Like market institutions, legislative institutions reflect two key components: the goals or preferences of individuals (here, representatives seeking reelection) and the relevant transactions costs. We present three conclusions. First, we show how the legislative institutions enforce bargains among legislators. Second, we explain why, given the peculiar form of bargaining problems found in legislatures, specific forms of nonmarket exchange prove superior to market exchange. Third, our approach shows how the committee system limits the types of coalitions that may form on a particular issue.

> The organization of Congress meets remarkably well the electoral needs of its members. To put it another way, if a group of planners sat down and tried to design a pair of American national assemblies with the goal of serving members' electoral needs year in and year out,

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> they would be hard pressed to improve on what exists. [MAYHEW 1974, p. 81]

The new economics of organization holds that explicit market exchange is not the universally ideal institution for a transaction. The most successful application of this approach, the theory of the firm, attempts to explain, for example, why some transactions take place within a firm under certain circumstances and across a market (e.g., between firms) under others.[1] This theory also focuses on the structure of the corporation, notably the separation of ownership and control (Alchian and Demsetz 1972; Jensen and Meckling 1976; Fama 1980; Fama and Jensen 1983; Demsetz and Lehn 1985; Grossman and Hart 1986). With few exceptions, however, it has not considered other types of organizations, such as public bureaucracies, political parties, or legislatures.[2] The purpose of this paper is to extend this theory to the study of political organizations and, in particular, to explain the pattern of institutions within the legislature that facilitates decision making.

Studies of public policy-making emphasize the dependence of political decisions on interest group and constituency participation. While this approach is consistent with outcomes in many individual policy areas, it fails to explain how so many diverse interests are provided with policy benefits simultaneously. A huge variety of interests are represented in the legislature, and almost none is represented by a majority. For most interests to gain policy benefits, representatives with different constituents must agree to exchange support. Put another way, the diversity of interests creates gains from exchange within the legislature. While the literature implicitly assumes that these gains are captured, it fails to explain how trades are accomplished and enforced. If public policy reflects a series of bargains among various interests, how are these bargains maintained over time? As we know from the modern literature on contracts, the answer to this question is not always straightforward since not all agreements are enforceable.

[1] Typical applications focus on the various forms of vertical relations (Coase 1937; Williamson 1975, 1985; Klein, Crawford, and Alchian 1978). Besides these more general treatments of vertical integration, there are excellent treatments of other forms of vertical relations such as franchising (Rubin 1978), resale price maintenance (Gilligan 1986), and long-term contracting (Joskow 1985).

[2] The exceptions include Goldberg (1976), Moe (1984), Weingast (1984), Miller and Moe (1986), Tirole (1986), Milgrom and Roberts (1987), and some of the topics in North (1981). The program for wide application of the approach is discussed in Jensen (1983). Fama and Jensen (1983) extend the analysis of market organizations to include some nonprofit ones, though their analysis only begins the study of this important category of widely different organizations.

To address these issues, we develop a theory of legislative institutions that parallels the theory of the firm and the theory of contractual institutions. Like market institutions, legislative institutions reflect two key components: the goals and preferences of individuals, here legislators seeking reelection from their constituents, and the transactions costs that are induced by imperfect information, opportunism, and other agency problems. But the enforcement mechanisms underpinning exchange in market settings are typically unavailable to or inappropriate for the legislature. Solutions to contractual problems that arise in the market (e.g., vertical integration) do not directly translate into solutions to similar problems found in legislatures. We show how the legislative institutions enforce bargains among legislators and why, given the peculiar bargaining problems found in legislatures, specific nonmarket exchange mechanisms prove superior to market exchange. From a policy perspective, these institutions have important implications. Durability of bargains leads both to the durability of policies that these bargains are designed to implement and to the coalition supporting these policies. Our model thus has important implications for coalition formation and maintenance.

Section I summarizes the new economics of organization. Section II begins the analysis by presenting several assumptions on which our approach is based. Section II describes models of the market for votes and focuses on enforcement problems. Section IV presents our theory of legislative institutions and suggests why these institutions solve problems that arise in simple markets. Section V provides empirical evidence on several propositions that follow from our model. This evidence, from a variety of contexts involving the U.S. Congress, provides significant support for the model. Section VI derives some comparative static results that provide some additional evidence for the approach and suggest some important avenues for additional tests. A discussion section, Section VII, follows in which we explore alternative explanations for enforcing legislative exchange along with possible extensions of our approach.

I. The New Economics of Organization

The theory of the firm holds that production and exchange take place through institutions (contractual patterns, organizational forms) that reflect the specific pattern of transaction costs found in trade. The emphasis of this theory is on how specific organizational or contractual forms reduce these costs. Some of the important results from this literature will prove useful in our discussion of legislatures.

The seminal paper in this tradition (Coase 1937) asserts that the

firm emerges not simply to take advantage of specialization or economies of scale but to avoid the costs of using markets and the price system: "The main reason why it is profitable to establish a firm would seem to be that there is a cost of using the price mechanism. The most obvious cost of 'organising' production through the price mechanism is that of discovering what the relevant prices are" (p. 390). In other words, the firm provides a set of contractual mechanisms that substitutes for the price mechanism, in part because the price mechanism is too costly to use in certain circumstances.[3]

A major theme in the literature is that the institutions of the firm are designed, in part, to reduce the costs of assuring contractual performance. In the words of Williamson (1985, pp. 48–49), "Transactions that are subject to *ex post* opportunism will benefit if appropriate safeguards can be devised *ex ante*. Rather than reply to opportunism in kind, therefore, the wise [bargaining party] is one who seeks both to give and receive 'credible commitments.' Incentives may be realigned, and/or superior governance structures within which to organize transactions may be devised." This principle is one of the central lessons of this body of work; it underlies much of institutional and organizational design.[4]

The costs of assuring contractual performance are high in a variety of circumstances. Two settings concern us. The first centers on problems of observability (Holmstrom 1979) or measurement (Barzel 1982), for example, when it is difficult to separate out an agent's contribution from that of random events or when an agent has private information about, say, the quality of the good being sold. Imperfect observability generates well-known problems such as moral hazard, adverse selection, and shirking that plague simple spot market exchange. A large part of the literature spells out ex ante contractual forms designed to mitigate these problems. The second setting centers on incomplete contracts, for example, when it is impossible (or too costly) for contracting parties to plan for all possible contingencies. Several scholars have studied these settings and the attendant problems of ex post opportunism that arise when ex post incentives of the bargaining parties are inconsistent with performing ex ante agreements (e.g., Klein et al. 1978; Kreps 1984; Williamson 1985; Grossman and Hart 1986). Those works also study a variety of mechanisms that are used to mitigate these problems, typically some form of vertical relations.

[3] See also the discussion in Cheung (1983).

[4] Virtually every paper cited on the theory of the firm makes this argument. For particular details, see, e.g., Barzel (1982), Fama and Jensen (1983), Kreps (1984), or Williamson (1985).

We emphasize that the literature is not simply an analysis of contractual failures. As suggested by Williamson in the quote above, ex post problems lead to the design of organizational forms to mitigate these problems. The literature on vertical integration, for example, argues that this organizational form is largely an endogenous response to ex post contractual problems of the sort we have just mentioned. This example illustrates the argument that a particular form of internal organization proves superior to market exchange.

A major limitation of the new economics of organization is that it remains largely tied to market settings. Though the principles are obviously more general (as clearly articulated in Jensen [1983] or Milgrom and Roberts [1987]), applications to other settings are just beginning. Indeed, developing a general theory of organizations requires effectively applying this theory to types of organizations beyond those included in the set studied to generate it.

II. Representatives and Their Constituencies

In this paper, we take up this challenge by showing how this approach illuminates phenomena that take place in legislatures. The perspective developed in this paper rests on three assumptions.

ASSUMPTION 1. *Congressmen represent the (politically responsive) interests located within their district.*—While rational ignorance pervades the political system, that does not imply that the interests of constituents are irrelevant for representatives or that the latter are free to pursue their own interests. Rather, rational ignorance underpins interest group advantage in politics. Because most voters have only a dim awareness of an incumbent's actions, rational ignorance biases political response toward those who do form impressions. Thus interest groups, because they have greater individual stakes in particular issues, monitor congressmen and provide them with information. Groups also mobilize their members in support of friendly congressmen.

Interest groups are not uniformly distributed. They typically have concentrations of voters in particular locations. Farm organization members, for example, are concentrated in specific districts; so too are consumers of food stamps and members of welfare rights organizations. The elderly, to take another example, have a disproportionate presence in Florida and Arizona (medicare and social security) while miners are found in West Virginia, Pennsylvania, and southern Illinois (mine safety, black lung disease).

In the competition for interest group support, specific representatives have a comparative advantage. The lack of complete fungibility of votes implies that legislators are advantaged in attracting support

from interest groups located in their district (see Denzau and Munger 1986). This advantage arises because service to local interests attracts both votes and organized resources for the district's representative. Service to this group by an outsider, in contrast, attracts only the latter and may lose votes.

Electoral competition induces congressmen, at least in part, to represent the interests of their constituents. Because groups are not uniformly distributed across constituencies, different legislators represent different groups.[5]

ASSUMPTION 2. *Parties place no constraints on the behavior of individual representatives.*—Parties were strong around the turn of the century when they possessed reward systems and sanction mechanisms to control the behavior of members. Specifically, party organizations determined entry into competition for the local seat, the positions of power within the legislature, and the distribution of legislative benefits (e.g., a representative obtained legislative benefits only if he supported party measures). None of these conditions now holds. In what follows, we therefore treat the individual as the decision-making unit.[6]

ASSUMPTION 3. *Majority rule is a binding constraint.*—Proposed bills (alterations in the status quo) must command the support of a majority of the entire legislature in order to become law.

III. The Gains from Exchange: The Problem to Be Solved

Legislators pursue their reelection goals by attempting to provide benefits to their constituents (assumption 1). Acting alone, they cannot succeed (assumption 3). This, in combination with the diversity of interests they represent, generates gains from exchange and cooperation among legislators. But what institutions underlie—and enforce—this cooperation?

[5] Evidence for this view abounds in the literature. For a recent summary in the political science literature, see Fiorina (1981*b*). In the economics literature, systematic evidence has been provided as part of the controversy over ideological voting in Congress. While the empirical issue concerns the degree to which representative behavior can diverge from constituents' interests, all studies provide substantial evidence that the latter systematically—though not necessarily completely—affects congressional voting (see Kau and Rubin 1979; Kalt and Zupan 1984; Peltzman 1984).

[6] Substantial evidence for this assumption is provided in the political science literature (see, e.g., Mayhew 1966). To take one example: the whip system, once a tool of the leadership to keep party members in line, now operates as a service organization providing information to the leadership and to the members. To quote one popular text on Congress, it "operates not as much as a device to coerce or even persuade members as it does simply to inform the leadership of the disposition of members toward legislation" (Polsby 1984, p. 129).

The new economics of organization suggests that institutions evolve to ensure delivery of benefits. In order to understand why one exchange mechanism survives instead of another, we need to study the potential agency and transactions cost problems faced by legislators, given the types of trades they seek to make. It is useful to begin by focusing on previous approaches to legislative exchange that explicitly rely on marketlike mechanisms. By studying the enforcement problems encountered in this setting, we can determine the characteristics a more appropriate legislative exchange mechanism must possess.

Previous work has focused on *vote trading*, also known as logrolling, centralized legislative exchange, or legislative IOUs. The major proponents of particular versions include Tullock (1967, 1981), Wilson (1969), Telser (1980), Koford (1982), and Becker (1983). While there are significant differences among these approaches, fundamental to each is an explicit or implicit market in votes. Under the most well-known logrolling version, legislators begin with proposals to benefit themselves at the expense of others, but none of these proposals commands a majority (Buchanan and Tullock 1962; Tullock 1967, 1981). Legislators therefore search out trading partners. In exchange for support, each gets his proposal passed and, on net, is better off. In the explicit market versions, votes are bought and sold for a price, with the "equilibrium" prices determining vote trades and hence the set of bills passed (see also Wilson 1969; Koford 1982).

The motivation underlying these market models is clear. By giving away votes on issues that have lower marginal impact on their district (and therefore on their electoral fortunes) in exchange for votes on issues having a larger marginal impact, legislators are better off. Whether or not they incorporate an explicit auction, models of the legislative market for votes have considerable appeal.

A careful inspection, however, reveals that this approach assumes away some of the deepest problems plaguing legislative exchange. It assumes, for example, that all bills and their payoffs are known in advance; that is, there are no random or unforeseen future events that may influence outcomes or payoffs. Either the time dimension is suppressed or enforcement of agreements over time is left exogenous. Because these models study a legislature with no future, they cannot address how legislators cope with agreements that cover more than one legislative session.

A variety of exchange problems arise because the value of today's legislation significantly depends on next year's legislative events. Members of future sessions face incentives different from those faced when the trade occurred and may seek, for example, to amend, abolish, or simply ignore previous agreements. Because current legislators

typically *cannot* bind a future legislative session, problems of enforcement over time are critically important for understanding legislatures and cannot be assumed away. Moreover, as we will see, these settings inhibit the ability of noninstitutional enforcement of cooperation (e.g., reputation) as the sole means of policing bargains. In the face of uncertainty over the future status of today's bargain, therefore, legislators will devise institutions for long-term durability of agreements that ensure the flow of benefits beyond this session of the legislature.

To begin our analysis, we observe that most models of the legislative market apply to only a subset of problems faced by legislators, typically the pork barrel. Pork barrel programs are an important part of every major Western government, but they have special characteristics that do not hold for other types of legislation. For example, benefit flows are contemporaneous to different legislators (in this case, the funds financing the project), and consummation of trading is simultaneous (see, e.g., Buchanan and Tullock 1962; Tullock 1981; Koford 1982). Focusing solely on pork barrel–type programs rules out virtually all the important issues studied in the regulatory literature as well as the major U.S. redistributive programs.[7] We consider the problems generated by noncontemporaneous benefit flows and nonsimultaneity in turn.

A. *Noncontemporaneous Benefit Flows*

To see how differential patterns of benefit flows potentially inhibit trading, consider the following exchange problem. Suppose that a group of legislators seeking pork, for example, dams and bridges, attempts to find some other group of legislators with whom to exchange votes. Suppose further that one potential set of trading partners is a group of legislators who seek a flow of services from a regulatory agency. If the two sides exchange votes, the first group obtains its dams and bridges while the second obtains its regulatory agency. Once the dams are built, however, what stops the first group from reneging on the agreement, for example, from working during a future legislative session to revoke the regulatory benefits? Simple market exchange institutions do not adequately protect against this form of reneging (and, as we will see, repeated interaction alone is insufficient to prevent this problem). Rational coalition partners, therefore, discount the potential gains from a proposed trade by the probability that these benefit flows will be curtailed by reneging. Consequently, the second group of legislators might not accept the trade

[7] For several surveys in this literature, see the articles in Fromm (1981).

(e.g., if the trade yields them positive net benefits only if reneging does not occur).

B. *Nonsimultaneous Exchange*

A second exchange problem arises because many potential trades concern bills that do not come up for a vote simultaneously. In the pork barrel area, legislators are able to limit this problem by packaging all projects into an "omnibus" bill containing all elements of the trade. This simple device limits the opportunities for ex post reneging.[8] But it is not always possible for all bills in a legislative session to come up for a vote simultaneously.[9]

Consider a trade negotiation taking place just prior to a vote. In exchange for a vote, some legislator promises to support another legislator's bill that is due to come up sometime later in the session. In other words, he extends an IOU to the second party. But problems with IOUs occur in part because they are not a medium of exchange. They require that one individual rely on the future behavior of another. Were votes a medium of exchange, this reliance would not be necessary.[10]

Consequently, exchanges relying on IOUs are plagued by the two problems noted in Section I, namely, problems of observability and of the existence of contingencies too numerous (or too costly) to anticipate fully. Many events may occur between the two votes. First, public perception of the issue may change, and the electoral effect of this change is observable solely to the representative it affects. This induces a form of moral hazard. Thus the first legislator may claim that he can no longer support the bill and so attempt to renege. Since the state of the world is observed only by one legislator, it is difficult for the second legislator to verify the first's claims about whether he should be required to hold up his end of the bargain. Second, in response to changing political circumstances, the bill itself may evolve. This introduces a double-sided form of moral hazard. Since the elec-

[8] Because the omnibus mechanism for ensuring against reneging is more readily available for bargains between members of the same committee (e.g., across subcommittees), the optimal pattern of committee jurisdictions depends on the expected pattern of trading. See Ferejohn (1986) for a further discussion of this and similar issues.

[9] Nonetheless, when the volume of legislation was sufficiently low to allow all bills to be passed in a short period, legislatures in fact did so. Thus, for the U.S. Congress in the nineteenth century, it was common that a major portion of legislation was passed during the lame-duck session after the election of the next congress. This also appears to hold today for states whose legislatures meet for only short periods.

[10] As a consequence, the so-called double coincidence of wants is not satisfied by this transaction. More generally, IOUs have none of the properties of a medium of exchange: a store of value, a unit of account, and ready transferability.

toral effects of this change are observable solely by the legislator it affects, the first legislator may argue that, while he could support the original bill, he cannot support the new version. On the other hand, the drafters of the legislation, having gained additional support through trades, may opportunistically rewrite the legislation so as to increase their own benefits (and impose greater costs on others).

Trading in legislative IOUs thus poses considerable contractual problems of the sort studied in the theory of the firm. Either IOUs must be for a specific form of a bill without any alterations or they must provide for hundreds of contingencies, many of which are not observable to both parties. Neither form of IOU is likely to prove useful. The former severely limits the trading possibilities. Since most legislation is altered at several stages before it is passed, this form of IOU exchanges one vote for sure against one vote under relatively rare circumstances—an unlikely basis for a transaction.[11] Further, different contingencies are important to different legislators, and the market for specific, contingent IOUs is likely to be extremely thin, perhaps requiring a different price for each potential trade. As Coase (1937) observed, this obviates the benefits of a price system. But perhaps more important, the observability problems associated with many contingencies suggest that IOUs are unenforceable: how are the parties to agree ex post when the number of possible events is larger than the number of specified contingencies and when both parties cannot observe the outcome?

This discussion reveals that market forms of exchange are limited as a means of capturing the gains from trade. As noted in Section I, problems with observability and ex post enforceability are fundamental to understanding the motivation for internalizing a transaction with a firm. Just as these problems lead to the emergence of vertical integration to replace market exchange, they motivate the design of institutions within the legislature that substitute for explicit market exchange.

In the discussion so far, there has been little mention of the role of repeat play. Repeated interaction provides incentives for individuals to adhere to agreements this period so as to maintain a flow of benefits over time.[12] This form of endogenous cooperation surely plays a

[11] See Ferejohn (1974*b*) for a further exploration of the peculiar properties of a market in votes. This stems in part from results in the collective choice literature that show that when one set of vote trades is feasible, so are many others (e.g., Schwartz 1981). This prevents the logic of the standard arguments about supporting price systems from holding in this context.

[12] See, e.g., Axelrod (1984) and Calvert (1985). There is, of course, a growing literature in economics on this topic (e.g., Telser 1980; Klein and Leffler 1981; Kreps and Wilson 1982; Roberts 1986). A further problem limits the workability of this solution, that of legislative turnover. Even in current times when incumbents are reelected with

role in legislatures, and for some settings, it alone may be sufficient to police bargains. It is well known, however, that "the long arm of the future" is inadequate in settings in which agents have private information and in which it is impossible or too costly to specify all contingencies in advance.[13] It is precisely these problems that we have argued motivate the need for alternative legislative institutions. The importance of unanticipated contingencies in both noncontemporaneous and nonsimultaneous trading combined with private information and moral hazard in the latter suggests the need for additional mechanisms to maintain bargains.

Perhaps another way of putting the argument of this section is as follows. Repeat play alone is insufficient to prevent the breakdown of cooperation under certain circumstances. Legislators therefore have an incentive to devise institutions that reduce the circumstances in which breakdown occurs. In this sense, legislative rules are not substitutes for reputation building and trigger strategies commonly used in repeat play. Rather, rules complement the use of these strategies and, in particular, prevent the breakdown of cooperation at precisely the circumstances under which these other strategies fail.

This argument closely parallels that of vertical integration in which reputation effects are also insufficient to police cooperation between firms. In both cases, potential contractual problems lead to the design of institutions that substitute for market exchange; in so doing, they improve ex post enforceability of agreements. This does not imply that reputation building is unimportant in legislatures or in firms that are vertically tied, just that it is not the *sole* means of enforcing agreements. Indeed, the other institutions of the legislature undoubtedly facilitate its use as a means to complement other devices.

C. *Implications*

Problems concerning the durability and enforceability of bargains are ubiquitous in legislative settings, limiting the value of explicit market forms of exchange.[14] Put another way, coalitions lack durability under

high frequency, the average net turnover in Congress is 10 percent per term. Moreover, the losers are typically replaced with members with different preferences if only because the latter, in order to beat the former, had to devise a separate support constituency.

[13] The literature on the theory of the firm is built on the premise that the incentives derived from repeat dealings alone are insufficient to police incentive problems. Examples are the vertical integration or the optimal structure of financial claims. See the references in n. 2.

[14] Moreover, the problem of non–pork barrel programs and lack of simultaneity do not exhaust the situations in which a legislative market is a poor provider of durability. For example, even if two groups of legislators both seek permanent regulatory benefits,

an explicit market exchange system. In the face of these problems, legislators will devise alternative institutions that provide exchanges with a greater degree of durability (see Ferejohn 1986). We now turn to a discussion of how this is accomplished.

IV. The Legislative Committee System

This section develops a model of an idealized legislative committee system. The types of policies (i.e., legislative bargains) that emerge from this model parallel those predicted by the vote-trading models; but it is not plagued by problems of enforcement of exchanges. The legislative committee system is defined by the following three conditions.

CONDITION 1. Committees are composed of a number of seats or positions, each held by an individual legislator. Committees possess the following properties: (*a*) associated with each committee is a specific subset of policy issues over which it has jurisdiction (e.g., commerce, energy, banking, or agriculture); (*b*) within their jurisdiction, committees possess the monopoly right to bring alternatives to the status quo up for a vote before the legislature; and (*c*) committee proposals must command a majority of votes against the status quo to become public policy.

CONDITION 2. There exists a property rights system over committee seats called the "seniority system." It has the following characteristics: (*a*) a committee member holds his position as long as he chooses to remain on the committee; subject to his reelection, he cannot be forced to give it up; (*b*) leadership positions within the committee (e.g., chairmanship) are allocated by seniority, that is, the length of continuous service on the committee; (*c*) rights to committee positions cannot be sold or traded to others.

CONDITION 3. Whenever a member leaves a committee (e.g., by transfer, death, or defeat), his seat becomes vacant. There is a bidding mechanism whereby vacant seats are assigned to other congressmen.

Condition 1 defines the source of committee power and value, condition 2 defines the property rights system associated with committee positions, and condition 3 establishes an exchange mechanism over the rights established under 1 and 2.

Let us explore the consequences of the legislative committee system to determine its enforcement properties, how new policies are pro-

changing electoral fortunes may promote growth in one and shrink the other; to the extent that this change appears reasonably permanent, it provides the conditions fostering a revocation of the latter group's benefits. When the once and for all gains exceed the cost potentially imposed by the (now smaller) other side, reneging is likely to occur.

vided, its control of the agency problems that arise from the delegation of power to a particular subset of members, and the types of policies that are likely to emerge from it.

A. *Enforcement of Legislative Bargains*

The committee system provides substantial protection against opportunistic behavior, thereby providing durability to policy bargains. To see this, consider the setting described above in which one group of legislators seeks dams and bridges and the second seeks a regulatory agency benefiting its constituents. In the legislative market, this agreement is vulnerable to ex post reneging of the following form: the first group, after building its dams, might form a coalition with other legislators (perhaps the minority excluded from the original deal) to pass a new bill revoking the regulation benefiting the second group.

But now consider the same bargain assuming that it was forged under the committee system and that the first group controlled the committee with jurisdiction over pork barrel programs, the second, the committee with the jurisdiction over the relevant regulations. Under the committee system, the second group retains control over the agenda within its jurisdiction. Suppose that, once the dams and bridges are completed, the first group introduces legislation to revoke the benefits flowing to the second group, and, further, a majority supports this legislation. However, only the committee with jurisdiction can bring it to the floor for a vote. This control over the agenda within its jurisdiction implies that a committee has veto power over the proposals of others. Since this proposal would make the committee worse off (and since, by assumption, a majority will support it on the floor), the committee would not allow it to come up for a vote. In other words, the restricted access to the agenda serves as a mechanism to prevent ex post reneging.

Moreover, because exchanges in influence are institutionalized through the property rights system, the absence of simultaneity is considerably less troublesome. As long as the property rights system is maintained, the agenda power held by each committee substitutes for outstanding IOUs with uncertain contingencies. The problems associated with devising contingent claims over future events are relatively absent under the legislative committee system.

B. *Providing New Benefits (or How Committees Capture the Gains from Exchange)*

The agenda rights afford committee members considerable influence over policy choice within their jurisdiction. This follows because the

set of points that command a majority against any given status quo, $W(sq)$, is generally quite large (McKelvey 1976, 1979; Shepsle and Weingast 1981). Typically, $W(sq)$ includes a wide range of policy alternatives, some making committee members worse off and some making them better off. Given this range of alternatives, agenda power allows committees to bias the outcome in favor of the alternative they most prefer.[15]

The committee system institutionalizes a trade among all the legislators, policy area by policy area, for the right to select which points from $W(sq)$ replace the status quo. But this is neither accomplished nor enforced by an explicit market exchange. Rather, a legislator on committee i gives up influence over the selection of proposals in the area of committee j in exchange for members of committee j's giving up their rights to influence proposals in area i. Institutionalizing rights over agenda power—that is, control over the design and selection of proposals that arise for a vote—substitutes for purchasing the votes of others in an explicit market. Since any element of $W(sq)$ will pass by definition, it is the influence over elements of this set afforded committees by agenda power that eliminates the need for explicit exchange of votes.

C. *Who Gains Influence (or How Are the Gains from Exchange Distributed)?*

This question concerns the types of policies chosen under the committee system. Since committees afford their members disproportionate influence over policy choice within their jurisdiction, it also concerns the mechanism that assigns legislators to committees.

Condition 3 provides that the legislature uses a bidding mechanism to assign members to committee positions. Since a representative's electoral fortunes depend on his obtaining benefits for his constituents and since constituent interests differ, legislators seek assignment to those committees that have the greatest marginal impact over their electoral fortunes. The real opportunity costs of bidding for committee i are that the representative gives up the possibility of holding a seat on committee j. Thus representatives from farm districts are much more likely to bid for seats on agriculture committees than they are for seats on urban, housing, or merchant marine committees. A potential problem arises, however, because some committees are valued by all (e.g., the spending or taxing committees). However, here too the bidding mechanism determines assignment. The more com-

[15] The details of this process are beyond the scope of this paper. For an in-depth analysis, see Shepsle and Weingast (1984, 1987).

petition for seats, the less likely the bid will be successful. Suppose each potential bidder for a highly valued committee (e.g., one concerning taxes) also values some specific policy committee with much less competition (e.g., housing, agriculture, or public works). The increased competition for seats on the tax committees implies that only those with the greatest differential value between the tax committee and their next-best alternative will pay the opportunity cost of bidding (i.e., giving up a higher probability of getting their policy committee).

D. Implications for Coalition Formation

The legislative committee system has two separate effects on coalition formation. First, agenda power held by committee members implies that successful coalitions must include the members of the relevant committee. Without these members, the bill will not reach the floor for a vote. This, in turn, implies that certain policies are unlikely to become law, for example, those that provide benefits only to a majority off the committee. In technical terms, committee veto implies that, from among the set of policies that command a majority against the status quo, only those that make the committee better off are possible (this issue is extensively explored in Shepsle and Weingast [1987]). This significantly reduces the feasible set of policies that may be implemented.

Along these lines, we also note that since committees have rights to bring a single bill to the floor, trades among committee members are more likely to succeed than those across committees. This follows because there is less chance for such a deal to fall apart. When a coalition forms between members of two committees, legislators must agree to exchange votes on two separate bills. When a coalition forms among members of the same committee, they may bring a single bill to the floor. The latter allows a single up or down vote on the package (whereas the former does not), thereby affording less chance for reneging. This suggests that drawing the jurisdictional boundaries between committees is an important strategic variable that affects the pattern of coalitions.[16] Ceteris paribus, expected trading partners are better off if they are members of the same committee so that the

[16] See Ferejohn (1986) for a discussion of this issue in the context of a trade between the urban members on the Agriculture Committee (seeking food stamps) and the farmers on this committee (seeking continued farm benefits). He argued that being on the same committee advantaged these urban members over other potential legislative partners who were part of other committees that might have brought some other form of legislation providing some subsidy for food for the poor (the latter could have easily been written by, e.g., Ways and Means).

optimal pattern of jurisdictions must in part reflect the expected pattern of trades.

The second effect on coalitions concerns durability. The durability afforded by the committee system induces some rigidities into the coalition formation process. Under a market exchange mechanism, small changes in political circumstances would lead to a small change in the optimal set of bargains and coalitions. But under the committee system, small changes in circumstances do not automatically lead to changes in policy. To see this, consider the example explored above involving dams, bridges, and regulatory benefits. We showed above that committee veto power prevents the proponents of dams from easily reneging once their dams are built or if, because of a change in political circumstances, they find a more attractive coalition partner.

This does not mean, however, that the dam-and-bridges legislators can never alter policy. Rather, it means that they must bid for seats on the committee and wait until they attain a majority. Small changes in political circumstances are not likely to make it worth the attempt. Therefore, the committee system implies that policy will respond only to large changes in political circumstances or to major shifts in the electorate.[17]

E. Controls over Committees

Committees are decentralized decision-making units composed of those legislators with the greatest stake in their jurisdiction. Their power to decide what proposals (if any) are brought to the floor places them in an agency relation with the rest of the legislature. As with any form of delegation, this authority provides the potential for moral hazard. What prevents the committee from extracting too much surplus at the expense of other legislators?

The committee system constrains the behavior of its subunits by restricting committee power. In particular, the majority rule condition precludes any one committee from extracting too many gains at the expense of others. Suppose, for example, that one committee attempts to extract the entire budget. The majority rule requirement implies that this proposal must get a majority of legislators to give up the opportunity to spend some of the budget in their areas. They will do so only if the value of the last dollar from this proposal to them exceeds the value of the first dollar spent within their own jurisdic-

[17] We note that this phenomenon parallels vertical integration. There, long-term agreements also induce durability and rigidities: the contract is not renegotiated with each small change in economic circumstances (e.g., prices) and therefore does not respond to changes in the way a spot market does.

tion. Since members value influence within their own jurisdictions, this situation is unlikely. Thus the voting rule plays an important constraining role over the opportunistic behavior of particular committees.[18]

F. Summary

Instead of trading votes, legislators in the committee system institutionalize an exchange of influence over the relevant rights. Instead of bidding for votes, legislators bid for seats on committees associated with rights to policy areas valuable for their reelection. In contrast to policy choice under a market for votes, legislative bargains institutionalized through the committee system are significantly less plagued by problems of ex post enforceability.

V. Evidence: The Distribution of Preference, Influence, and the Benefits of Committees

In what follows, we provide evidence showing that choices and decision making in the U.S. Congress are consistent with our view.[19] (Thus this is not a direct test between our model and the vote-trading approach.)

The major feature of our model is that exchange takes place via institutionalization through the committees. By far the strongest piece of evidence from the U.S. Congress in favor of our approach concerns the pattern of membership and benefit flows for the various committees (Fiorina 1981*a*). Members from farming districts dominate the agriculture committees and oversee programs that benefit farmers. Members from urban districts sit on banking, housing, and welfare committees that provide benefits to an incredible array of urban constituents. Members with large defense installations or industries dominate Armed Services committees. In each case, members mold policies in their jurisdiction to their constituents' advantage.

The model is based on a set of assertions about committee operation: (*a*) the assignment process operates as a self-selection mechanism; (*b*) committees are not representative of the entire legislature but instead are composed of "preference outliers," or those who value

[18] In most legislatures, the amendment process places additional constraints on the behavior of committees. For details of this process for the U.S. Congress, including how it qualifies this argument, see Shepsle and Weingast (1987). The problem of how this body places constraints on committees has never received systematic treatment.

[19] Congress, unlike the British Parliament, meets the conditions set out in Sec. II. We briefly compare our findings for the American case with those of the British in Sec. VII.

the position most highly; and (*c*) most centrally, committee members receive the disproportionate share of the benefits from programs within their jurisdiction. Let us survey the empirical evidence supporting these propositions.

A. *Committee Assignments*

At the beginning of each new congress, there are a number of vacant committee seats in some 25 committees and there are incoming freshmen without seats.[20] They are encouraged to request only a small number of possible positions. Then party leaders attempt to match individual assignments with their freshman requests. There is, however, a potential problem here: What prevents the system from breaking down because everyone requests seats on the best and most powerful committees? How does the bidding mechanism actually select those freshmen willing to bid the most for particular committees?

The mechanics of the assignment process are designed to work against breakdown. It turns out that there are certain committees (e.g., Post Office) that no one wants. Those who fail to get one of their requested slots are generally put on one of these committees. Requesting the most valuable slots, therefore, increases the probability of ending up with Post Office. Suppose each freshman may potentially request a particular substantive policy committee (e.g., Agriculture, Housing and Welfare, or Public Works) valuable for his district that he has a high probability of getting. Which ones will opt instead to request the more powerful committees? Since the latter option involves a lottery between the most valuable committee and one worth virtually nothing, only those freshmen who value it most highly in comparison with the sure thing of getting on their policy committee will bid for it.[21] This lottery implies that revealed preferences reflect true preferences and shows how the assignment mechanism succeeds

[20] The following description relies on Shepsle (1975, 1978). While he did not discuss the preference revelation aspects of the assignment process, it is clear that the process must rely on some means of inducing truthful requests. Since few empirical contexts that make use of these mechanisms have been studied, his data remain an untapped source for further study. In what follows, we ignore for simplicity returning members who wish to change committees. For details on how this works, see Shepsle (1978).

[21] The following table reports the frequency distribution over the lengths of request lists (i.e., how many committees each freshman requests). Three-quarters of all freshmen (87th–93d Congress) ask for three or fewer out of 25. The number of observations is 231 (source: Shepsle 1978, p. 49).

Length	1	2	3	4	5 or More
Percentage	23	16	36	15	10

TABLE 1

FRESHMAN ASSIGNMENT SUCCESS

CONGRESS	PROPORTION RECEIVING			N
	First Preference	Other Preference	No Preference	
87th	.474	.368	.159	19
88th	.500	.306	.194	36
89th	.591	.254	.155	71
90th	.308	.308	.384	13
92d	.750	.144	.106	28
93d	.691	.166	.193	26
All	.585	.243	.172	193

SOURCE.—Shepsle (1978, p. 193).

in matching members with committees whose jurisdictions they value most highly.

The evidence supporting this interpretation is twofold. First, table 1 shows that the probability of a freshman's gaining one of his top three is above .8.[22] Second, and more important, table 2 shows that when there is no competition for a seat, the requester is virtually assured of getting his first choice (the probability is over .94); but the greater the competition, the less likely is a freshman to attain his first choice. There is also considerable evidence that freshman requests take into account competition for seats.[23] Competition of this sort appears necessary—though not sufficient—to ensure that bids reflect underlying preferences.

Overall, then, the pattern of committee assignments looks remarkably like an optimization process that maps members into those committees they value the most.

B. *Committee Membership*

To be more systematic about committee membership, we have examined indexes of member preferences over issues that correspond to

[22] Moreover, it is not clear that this frequency can be much higher because of the many accounting constraints (see Shepsle 1975) imposed on the problem (e.g., only one freshman per slot; each vacant slot must be filled).

[23] Shepsle (1978) provided one more piece of evidence for our model. Using probit analysis to predict which freshman requests particular committee slots, he estimated a set of simple demand equations. His results are consistent with our model, namely, that simple measures of constituency interest (e.g., number of agricultural workers, military employees, or housing) are good predictors of requests. Moreover, these estimates also show that freshmen rationally anticipate competition for different seats: when other factors are held constant, the estimated probability of a freshman's *requesting* a certain seat goes down as the number of competitors increases.

TABLE 2

EFFECTS OF COMPETITION ON ASSIGNMENTS

FIRST PREFERENCE ASSIGNMENT SUCCESS	TOTAL NUMBER OF EFFECTIVE REQUESTS PER VACANCY		
	Less than 1	1–2	More than 2
Yes	94.4	67.2	30.5
No	5.6	32.8	69.5

SOURCE.—Shepsle (1978, p. 201).

major committee jurisdictions. This exercise reveals that members of the relevant committee or subcommittee significantly differ from the rest of the House.[24] Most indexes are computed by an interest group with a clear stake in the policy area being considered. Because they are constructed so as to indicate which congressmen are supporters of the group, these indexes are good proxies for supporters of the group's interests. The scores computed by the AFL-CIO Committee on Political Education (COPE), for example, indicate pro- and anti-labor congressmen; the American Security Council's National Security Index (NSI) reveals supporters of a strong national defense and, apparently, opponents of foreign aid.[25]

The model predicts that representatives of particular interests gain policy benefits through membership on relevant committees. Hence we should observe that committees are composed of members who are significantly above-average supporters of the relevant interest group and, in particular, have interest group scores significantly above the mean for the entire Congress.

This pattern is borne out by the results reported in table 3. The difference in preferences between committee members and the rest of the House is highly statistically significant. For a diversity of policy areas—defense, foreign aid, consumer protection, labor, and the environment—committee members are indeed significantly above-average supporters of benefits to the relevant interest group.

Putting this evidence together with results from committee assignments reveals that legislators opt for committees relevant to their constituents' interests and that their doing so leads to committees

[24] Though this would seem to be an obvious topic for political scientists, they have never systematically collected this type of data. Instead the literature typically provides anecdotal evidence, the best of which can be found, e.g., in Jones (1962) or Fenno (1973).

[25] Foreign aid to other nations, under the jurisdiction of the Foreign Relations Committee, seems to be a (political) substitute for military spending programs. The evidence suggests that those congressmen who support this aid tend to be against defense spending, and vice versa.

TABLE 3

COMMITTEE MEMBERS ARE PREFERENCE OUTLIERS RELATIVE TO THE FULL HOUSE (1978)

	Full House Mean[a]	Committee Mean	N[b]	t-Statistic
1. Armed Services: NSI	59.1	76.8	38	17.87**
2. International Relations:				
NSI	61.7	50.2	37	11.42**
ADA[c]	37.5	46.5	37	10.23**
t-test for mean NSI difference between Armed Services and International Relations				19.40**
3. International Relations: International Economic Policy and Trade Subcommittee:				
NSI	60.8	51.3	7	4.24**
ADA	38.1	45.0	7	3.50**
4. Interstate Commerce: Consumer Protection and Finance Subcommittee: ADA	37.9	55.5	8	9.57**
5. Education and Labor: Economic Opportunity Subcommittee: COPE	50.4	60.0	4	3.33**
6. Environmental subcommittees: LCV[d]	46.7	58.3	28	2.08*

[a] All non–committee members.
[b] Committee or subcommittee size.
[c] Vote ratings of the Americans for Democratic Action.
[d] Includes two of the major subcommittees with oversight responsibility for the Environmental Protection Agency, the Subcommittee on Energy and the Environment (Interior Committee), and Subcommittee on Health and the Environment (Commerce Committee). LCV is the League of Conservation Voter scores for 1977.
* Significant at the .05 level.
** Significant at the .01 level.

composed of legislators with considerably higher support for policies within their jurisdiction. This pattern is precisely that expected by the view that committees institutionalize trades over influence so as to give their members greater control over policies with their jurisdiction.

C. *Committee Policy Benefits*

Do committee members receive a disproportionate share of the benefits from their committees? The evidence on preferences provides indirect support for this since committees disproportionately attract representatives seeking to provide their constituents with benefits.

Here we summarize some direct evidence in favor of this proposition.[26]

1. Ferejohn (1974*a*) in his now-classic study on the pork barrel tested a variety of hypotheses about committees. He showed that the number of new projects started in each state is a function of committee membership. His estimations imply, for example, that each member on the Public Works Committee yields an additional 0.63 new projects for his state. Further, each 10 years of service by representatives from a state yields approximately an additional project. Similar results are obtained regarding more than two dozen related hypotheses.

2. Arnold (1979) studied three areas (military base closings, water and sewage grants, and model cities grants) and provides results similar to Ferejohn's about the pattern of benefits.[27] His contingency tables provide unambiguous evidence; we reproduce two.

Table 4, part A, shows the frequency of acceptance of an application for a water and sewage grant, depending on a congressman's position in the committee system: is he a member of the relevant appropriations subcommittee? the relevant authorization committee (Banking and Currency)? of neither? The table shows that members of the relevant committees systematically fare better than nonmembers. Those on neither committee have a probability of acceptance of .176. In contrast, members of the Appropriations Subcommittee have a probability of acceptance of .313 (80 percent larger), and members of the authorizing committee have a probability of acceptance of .281 (60 percent larger). The differences are significant at the .001 level. Part B of the table shows that the same pattern holds for model cities project selection. For these projects, congressmen who are on neither relevant committee have a probability of selection of .29. The probability of acceptance for members of the Banking and Currency Subcommittee, .62, is more than double that for nonmembers; the probability for members of the Appropriations Subcommittee, .86, is nearly triple.

3. Several recent studies by economists used similar methodologies and yielded similar evidence. Malone (1982), studying defense expen-

[26] Unfortunately, by far the biggest effort to support this proposition in the political science literature comprises anecdotal or descriptive material rather than systematic data analysis. While this literature supports our proposition, it is no substitute for systematic empirical investigation.

[27] We do not reproduce his probit estimates here (nor discuss his concerns about whether congressmen manipulate bureaucrats or bureaucrats manipulate congressmen). These estimates suffer from significant econometric problems and are therefore of questionable value. Simultaneity, much like that found in estimating supply and demand equations, plagues his design.

TABLE 4

FREQUENCY OF ACCEPTANCE OF APPLICATIONS

Application Represented	Applications Accepted	Not Accepted	Total Decisions	Probability of Acceptance
	A. Water and Sewage Grant Selection (1970)			
Subcommittee of Appropriations Committee	21	46	67	.313
Banking and Currency Committee	27	69	96	.281
Neither committee	261	1,223	1,484	.176
Total	309	1,338	1,647	
	B. Model Cities Project Selection			
Subcommittee of Appropriations Committee	6	1	7	.86
Banking and Currency Committee	5	3	8	.62
Neither committee	38	78	116	.29
Total	49	82	131	

SOURCE.—Arnold (1979, pp. 139, 180).
NOTE.—For pt. A, $\chi^2 = 13.80$ and significance level is .001. For pt. B, $\chi^2 = 10.81$ and significance level is .01.

ditures, showed that members of the Armed Services committees receive a statistically significant greater share of federal expenditures in this category, though Rundquist (1973) could find none. Faith, Leavens, and Tollison (1982) studied the geographic location of firms that are the target of antitrust suits brought by the Federal Trade Commission (FTC). They showed that firms located in districts represented on the FTC oversight subcommittees were systematically underrepresented in the set of suits brought by the commission. Cohen and Noll (1986), using an innovative methodology, derived similar results for federal R & D projects.

4. Weingast and Moran (1983) studied the influence of Congress on the distribution of cases chosen by the FTC under the various statutes it administers. They found, for the Senate, that all members possess some influence but that members of the relevant subcommittee possess more influence and that the subcommittee chairman possesses even more influence (see table 5). According to their estimates for textile cases (under the Fur, Wool, and Textile Labeling acts), a member of the subcommittee had nearly three times the effect of a nonmember while the chairman had 12 times the effect of a nonmember. Their results reveal a similar pattern for the other case types studied (credit cases, Robinson-Patman cases, and merger cases).

5. The pattern of campaign donations by firms provides additional

TABLE 5

CHANGE IN THE PROBABILITY OF OPENING A TEXTILE CASE WHEN A SENATOR'S ADA SCORE INCREASES 10 POINTS

Senator's Position	Change in Probability
Not on the subcommittee	.005
On the subcommittee but not chairman	.013
Subcommittee chairman	.060

SOURCE.—Weingast and Moran (1983).

evidence. A firm's decision to donate money to a congressional campaign must pass the same test as any other investment made by the firm; namely, the expected value of the return must exceed the dollars invested. When deciding among politicians, firms must focus on those congressmen with a marginal impact on their future profitability. If committee members have a disproportionate influence over policy choice in their area, then they should attract a disproportionate share of campaign contributions from firms affected by the committee's policy jurisdiction.

This prediction is clearly borne out in Munger's (1984) study. He estimated a probit model of the probability that a certain legislator receives a donation from a given firm. He showed that political action committees are systematically more likely to donate to members of committees that affect their firms: the probability that a committee member will receive a donation is .34 higher than that of a nonmember.

VI. Comparative Statics: Predictions and Evidence

In a simple market for votes, a small change in the relative composition of interest groups leads to a small change in the demand for votes. This, in turn, leads to a small change in the equilibrium pattern of exchange and hence in the distribution of policy costs and benefits. However, our argument about the demand for durable policies and the evolution of institutions to provide them implies that policies are partially insulated from small changes in member preferences. Because committees retain a veto over policy change, we must look to how these changes affect committee members. If the change in interest groups affects only legislators who are not members of the committee, then policy change is significantly less likely. But our model also leads to an important comparative statics prediction: a sufficient condition for policy change is that there is a substantial turnover in committee membership so that the new holders of committee prop-

erty rights have preferences that differ from those of their predecessors (see Weingast 1981; Weingast and Moran 1983).

While comparative statics results are a primary tool of prediction and testing in economics, few studies of political economy have used this approach to test theories of politics. Nonetheless, there exists some evidence on the prediction noted above in the empirical literature. We cite these studies and then suggest further tests.

A. *Appropriations*

Ferejohn (1974*a*) again plays an important role here. During the 1950s and early 1960s, fiscal conservatives dominated the congressional appropriations process. Further, during this period, committee leaders had nearly absolute power of assignment of members to subcommittees. One way of enforcing fiscal restraint was to assign members of the Appropriations Committee to a subcommittee only if they had no stake in the subcommittee's jurisdiction. By the mid-1960s, however, this rule had gone by the wayside so that subcommittees came to be composed of members with a high stake in their jurisdiction. Ferejohn showed that, for the Public Works Subcommittee, this led to a statistically significant increase in appropriations.

B. *Regulatory Agencies*

A host of recent studies of regulatory agencies has shown that committee members have substantial influence over agencies within their jurisdiction (Barke and Riker [1982] on the Interstate Commerce Commission, Grier [1984] on the Fed, Moe [1985] on the National Labor Relations Board, and Weingast and Moran [1983] on the FTC). In nearly all cases, these statistical studies showed that, as committee preferences change, so too does agency policy. Large swings in committee preferences lead to large swings in policy.

Weingast and Moran (1983), for example, studied the recent policy change at the FTC. In 1979 and 1980, the commission's aggressive consumer activist policies were halted by Congress. While this action was hailed as Congress's finally catching a runaway, out-of-control bureaucracy, Weingast and Moran showed that nothing of the sort happened. Instead, the FTC had been under the influence of the relevant subcommittee all along. From the late 1960s through the mid to late 1970s, this subcommittee both favored and fostered aggressive consumerist policies. However, following the 1976 election, a nearly complete turnover in membership brought to power members with substantially different preferences. Weingast and Moran interpreted the 1979–80 episode as the new committee's simply reversing the

policies of their predecessors rather than catching an uncontrollable bureaucracy. Their statistical tests support this interpretation.

VII. Discussion

Representatives of different constituencies have considerable incentives to exchange support so as to provide benefits to their supporters. Because the value of today's legislative bargains depends on actions taken in future legislative sessions, legislators also have incentives to devise institutions that provide today's bargains with durability. As in all exchange settings, the institutions that evolve to support the exchange reflect the specific pattern of transaction costs underlying the potential trades. For legislatures these include the possibility of contingencies too numerous (or costly) to specify in advance and private information. This gives rise to a host of institutions underpinning a set of property rights loosely referred to as the committee system. We showed that these institutions lower the risk of ex post opportunistic behavior that would plague explicit exchanges of votes. The legislative institutions therefore lower the agency costs associated with exchange.

In addition we showed why this set of institutions is superior to a market exchange mechanism. Instead of trading votes, legislators exchange special rights affording the holder of these rights additional influence over well-defined policy jurisdictions. This influence stems from the property rights established over the agenda mechanisms, that is, the means by which alternatives arise for votes. The extra influence over particular policies institutionalizes a specific pattern of trades. When the holders of seats on committees are precisely those individuals who would bid for votes on these issues in a market for votes, policy choice under the committee system parallels that under a more explicit exchange system. Because the exchange is institutionalized, it need not be renegotiated each new legislative session, and it is subject to fewer enforcement problems.

The committee system also influences coalition formation. Committee agenda power implies that successful coalitions in the area of the committee's jurisdiction must include the committee. This rules out, for example, policies that benefit solely a coalition of members off this committee, and this holds even if this coalition contains a majority of the entire legislature. Unless a coalition of non–committee members is prepared to include or "buy out" the committee, veto power allows the committee to block access of this coalition to the floor.

We also showed that policy bargains, and hence coalitions, are more durable under the committee system. Thus the decision to enter into such an agreement is much like entering a long-term contract, and

legislators will take this into account. This implies that coalitions will not always respond to small changes in political circumstances as they would under a spotlike market exchange system. Rather they tend to respond only to large shifts or major political realignments. Committee veto power combines with the property right system over seats to play an important role in maintaining a political coalition—and a particular policy—for long periods. Policy in a particular area may remain stable if committee membership is relatively stable, and this can hold even with major changes in the preferences of members off the committee. The ability to veto the proposals of others is a subtle yet powerful tool used by committees to influence policy in their jurisdiction (Weingast and Moran 1983; Shepsle and Weingast 1987).

This argument raises some interesting parallels and contrasts with those provided for vertical integration in market settings. In both cases, institutions are designed to prevent similar forms of incentive problems, for example, ex post opportunism. However, it appears that the source of these problems differs. For the case of vertical integration, it is relation-specific assets. For the legislature, however, incentive problems arise because there is no underlying medium of exchange so that trading votes requires future reliance and hence the opportunities for reneging (see n. 10). Moreover, as Ferejohn (1974*b*) has shown, it is not clear whether one can exist, given the peculiar externalities associated with vote trading.

We have pursued in this paper only one explanation for enforcing trades. It is useful, therefore, to discuss a number of potential alternatives, though a full-scale empirical investigation is beyond the scope of this paper. The first alternative is that ex post opportunism either is negligible or is handled in some other way, thereby allowing exchange to take place through trading. According to this view, the existence of committees is epiphenomenal, perhaps representing some formal (though unimportant) recognition of those legislators who have in fact "bought" influence over particular issues. An empirical test between this explanation and our model might focus on the responsiveness of policy choice to members of the committee. In an explicit exchange setting, large changes in the preferences of members off the committee should lead to changes in policy. Under the legislative committee model, committee veto rights imply that policy is more insulated from changes of this type, and hence we should observe policies to be less responsive.

A second competing explanation is perhaps more interesting. Parties, ruled out by assumption in our model, offer an obvious alternative for institutionalizing and enforcing trades. The historical evidence for the U.S. Congress suggests that strong parties and strong committees, as institutional underpinnings of legislative exchange, are substitutes. When parties were more powerful (e.g., at the turn of

the century), committees, though important, did not have such clear-cut rights as in modern times. Seniority, for example, was regularly violated by party leadership in allocating the leadership positions within committees. Importantly, virtually every institutional change during this century that has made committee rights stronger has come at the expense of parties and centralized leadership.

This suggests a natural extension of our approach to the case of party government (which includes the British Parliament in addition to the House of Representatives of the past). Strong parties are characterized by control over important resources such as entry into the competition for individual seats and the positions of power within the legislature (e.g., the ministerial positions in Britain), and they wield considerable influence over the distribution of legislative (read: electorally useful) benefits. Parties, like firms, can build types of reputations different from those of the individuals who make them up (see, e.g., Kreps 1984). To the extent that they are able to influence the behavior of their members through distribution of resources, parties potentially provide an alternative means of enforcing agreements. We hope to extend our approach in the future to yield results about the institutions underpinning legislative exchange in this context.[28] An important issue of this research concerns the circumstances favoring the survival of one mechanism over the other.

One limitation of our analysis is that, while we argue that legislative rules mitigate certain contractual problems, we do not explain how the rules themselves survive. Since majorities may alter the rules, what prevents the breakdown of cooperation that takes on a slightly different form? In circumstances in which reneging, say, would occur without rules, what prevents individuals from first voting to change the rules and then reneging? An extensive investigation of this issue is beyond the scope of this paper. However, there appear a variety of circumstances under which the rules will survive a breakdown whereas cooperation without rules would not. For example, if many different policy jurisdictions are governed by the same set of rules, then a single set of rules may link behavior in one area with that in another. Hence incentives to renege in one area do not automatically result in corresponding incentives to change rules that govern many areas.[29] Since it clearly touches on issues that hold for a large variety of organizations, this question is worthy of a separate investigation.

[28] For an interesting beginning on this problem, see Leibowitz and Tollison (1980).

[29] As a second set of circumstances, we single out the notion of leadership explored by Calvert (1986) in his extension of the Kreps and Wilson (1982) model to legislatures. Calvert studied circumstances in which a particular individual is given resources by other individuals. With these resources, he then, e.g., polices the behavior of his followers. In principle, this mechanism might be used to prevent the breakdown of cooperation in certain circumstances and therefore be valuable ex ante to members.

The empirical evidence supports four implications that follow from our model of legislative institutions but do not follow from a simple market exchange mechanism. First, committees are composed of "high demanders," that is, individuals with greater than average interest in the committee's policy jurisdiction. Second, the committee assignment mechanism operates as a bidding mechanism that assigns individuals to those committees they value most highly. Third, committee members gain a disproportionate share of the benefits from their policy area. This appears to hold across widely differing policy jurisdictions. Fourth, there exists important evidence supporting a comparative statics prediction of the model, namely, that as the interests represented on the committee change, so too will policy, with the interests of non–committee members held constant. Evidence supporting this proposition exists in several regulatory areas; future tests will reveal the robustness of the results.

In sum, the institutions of Congress appear remarkably suited to legislators' reelection goals. Their specific form appears to have evolved to reduce problems that also arise in market exchange, namely, problems of measurement, moral hazard, and opportunism.

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