Chapter 6: The Power of the Purse and Constitutional Reform

The theories of governance and constitutional bargaining developed above provides a rational choice explanation for the general architecture of European governance, for peaceful reforms of parliament, and for the existence of divided governance. To more fully account for the transition to the contemporary architecture of Western Democracy, however, requires analysis of more specific aspects of governance: in particular those dealing with fiscal authority and the manner in which members of parliament are selected. This is undertaken in the next three chapters. Chapter 6 provides an explanation for the medieval power of the purse and analyzes how it can be used to obtain additional policymaking authority for parliament. Chapters 7 and 8 analyze possible reforms of election-based methods for selecting members of parliament.

Chapter 6 is a long and technical chapter. Regional governments have the ability to impose binding rules and fees (taxes) on persons throughout their territories. This—perhaps unexpectedly—provides additional economic reasons for divided governance and additional opportunities for constitutional exchange. To analyze these possibilities, the models of chapter 5 are further developed in a more mathematical form. The prose provides the intuition behind the mathematics and helps explain the results. Examples from European history are again used to motivate the analysis.

A. Origins of the Medieval Parliament's Limited Power of the Purse

As a point of departure, again assume that a king-dominated form of the king and council template is in place: one-man rule with an advisory council. The council may be used as a source of information and advice, but plays no direct role in policy formation. The king can collect any taxes that he wishes and spend the money as he sees fit without taking account of the policy interests of his advisors or others outside government.

The ability to tax and spend as the king wishes creates problems analogous to those represented in tables 5.1 and 5.2, although this may not be evident at first. Territorial governments nearly always want additional tax revenue, but government cannot simply use its coercive authority to obtain additional revenues, because the size of the tax base is largely controlled by taxpayers. New tax collections may be resisted by, for example, working less hard, investing less, or exit. More militant forms of tax revolt are also possible. In such cases, allowing taxpayers some control over fiscal policy may allow additional revenues to be collected. Such constitutional bargains account for a

particular division of authority between kings and parliaments that was common in late medieval Europe. It turns out that that division of authority played a central role in the rise of Parliament-dominated governance many centuries later.

Because this division of authority is historically so important in Europe, the fiscal problem and potential gains from sharing authority over tax policies are analyzed using somewhat more general mathematical models. For purposes of analysis, assume that the king has a utility function defined over his own private consumption, X, and two government services, guns, G_1, and butter, G_2. Both the king and taxpayers benefit form both public services provided. His wealth is protected by the army and walls. He also benefits from public services such as road networks, potable water supplies, and a royal court system insofar as they enlarge the tax base and facilitate his access to useful supplies. However, only the king directly benefits from his private consumption expenditures.

$$U = u(X, G_1, G_2) \tag{6.1a}$$

The king's budget constraint is determined by his own household wealth, W, which is usually considerable; the present discounted values of the taxes that he levies, T, the cost of government services, $C = c(G_1, G_2)$, and his personal consumption, X. Using personal consumption as the numeraire good allows the royal budget constraint to be written as $T + W = X + c(G_1, G_2)$, or

$$X = T + W - c(G_1, G_2) \tag{6.2}$$

where c is a separable convex cost function of the two government services. Substituting for personal consumption yields

$$U = u(T + W - c(G_1, G_2), G_1, G_2) \tag{6.1b}$$

Differentiating with respect to the control variables T, G_1, and G_2 yields the following first-order conditions that characterize the unfettered king's preferred long-term fiscal policy:

$$U_{G1} - U_x C_{G1} = 0 \tag{6.3}$$

$$U_{G2} - U_x C_{G2} = 0 \tag{6.4}$$

$$U_x = 0 \tag{6.5}$$

The first two first-order conditions imply that the king sets public service levels so that the marginal utility of the service equals its marginal cost in terms of his diminished personal consumption of the private good. This implies that taxes will be collected until the marginal utility of his additional personal consumption falls to zero.

Credible Commitments and Constitutional Gains to Trade

Unfortunately, the marginal utility of consumption reaches zero only if the king has sufficient household and tax revenue to *achieve satiety in all goods*. ($U_x = 0$, implies that both U_{G1} and U_{G2} also equal zero at the utility-maximizing public policy.) Whether this is feasible or not depends on the king's preferences and the extent to which tax revenue may be "squeezed" from the kingdom. The tax base of the kingdom is clearly constrained by the wealth of the kingdom, which in most cases derives from the productive abilities and efforts of the king's subjects as well as the country's endowment of natural resources. If the king's tastes are such that satiation does not occur within the feasible range of the kingdom's output, he will be disposed to tax away or otherwise extract the entire surplus of the kingdom. (The "surplus" is the total economic output of the kingdom above that required to retain its residents, which clearly requires at least subsistence levels of income for those producing the outputs taxed.)

Unfortunately for the king, if every subject in the kingdom expects all of their production above subsistence to be taken by the government, there is no private incentive to produce a taxable surplus and none will be produced.[37] To obtain the hypothetically maximal tax revenue, the king must essentially enslave the entire population of the kingdom. Exit must be blocked and a centralized system of command and control over all economic activities adopted. If neither generalized slavery nor central administration is a useful strategy—because they are inefficient, very expensive to implement, or impossible—the king's control over tax revenues will be less than absolute, even though he has complete control over tax instruments and rates.[38]

Granting Veto Power to a Council of Taxpayers

The possibility of peaceful tax resistance is sufficient to create an opportunity for constitutional exchange between a nearly all-powerful king and those who pay the taxes.

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[37] This is intuitively obvious, but can easily be demonstrated. Consider a typical farmer-taxpayer whose utility is $U = u(L, Y)$ where $Y = (1-t)f(H-L, G_1, G_2)$, t is the marginal tax rate, f is a the taxpayer's strictly convex production function of farm output, L is leisure, and H is the available hours in the day. $H-L = W$, the hours spent farming. Y can be regarded as income greater than subsistence income. The taxpayers work $H-L^*$ hours, and L^* is such that $U_L - U_Y(1-t)F_W = 0$. Note that given U monotone increasing, twice differentiable, and concave, whenever t = 100 percent, a corner solution emerges with $L^* = H$. Subsistence output, $Y=Y^s >0$, is required to survive, so leisure is $L^* = H - f^1(Y^s)$.

[38] Note that a lump-sum tax cannot be truly neutral when it is bounded by production of the taxable base and/or possibilities of exit. Farmers will produce a surplus only when the net of tax utility realized after tax is greater than that associated with subsistence and exit.

In exchange for a commitment to take only a specific fraction of the surplus, the subjects might agree to provide more tax revenue by producing more surplus. To make the promised tax system credible, the king may also promise to seek the approval of those taxed before increasing tax rates in the future. Institutionalizing veto power over new taxation makes the promise of leviathan credible. For example, veto power might be vested in a tax council that represents the interests of (major) taxpayers.

The royal advantage secured by a standing "tax council" can easily be demonstrated. In the case in which the council lacks veto power, the process of taxation can be represented as a three-stage game. In the first stage, the king announces a tax rate; in the second, the subjects produce their output; in the third, the king collects his taxes. In a one-shot game, the king would announce a very low tax in period 1, but subsequently, take the entire surplus produced in period 3 regardless of the tax announced in period 1. Forward-looking subjects would anticipate the final confiscatory tax and produce no taxable surplus. Consequently, the king's tax revenue in period 3 would be zero in equilibrium. Constitutional gains to trade are clear. A tax institution that increases the expected after-tax income of taxpayers and produces additional revenue for the king makes each better off.

The existence of a council with veto power over tax increases transforms the three-stage into a four-stage game. In the fourth stage, the council may veto any increase in taxes announced by the king in period 3.[39]

In the four-stage game with a council veto over tax increases, an income-maximizing king, who is constrained to a proportional tax, will announces the proportional tax rate in period 1 that maximizes net tax receipts, given the productive propensities of his subjects. Because the revenue-maximizing tax rate is less than 100 percent, the subjects produce a surplus above subsistence, knowing that they will be able to keep a part of it, and the king collects taxes according to the announced tax schedule.[40]

It bears noting that *no vetoes will be observed* when the system is working smoothly; consequently, such councils may well appear to be "toothless." Nonetheless, in the absence of the council's veto power over new taxes, both the king and the kingdom would have been substantially poorer. The

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[39] Taxpayer utility always diminishes in t whenever tax receipts are increased to support additional consumption for the royal household. Given $U = u(L, Y)$ and $Y = (1-t)f(H-L, G_1, G_2)$, after tax utility can be written as $U^* = u(L^*, (1-t)f(H-L^*, G_1^*, G_2^*))$. The envelope theorem implies that $U^*_t = U_Y[-f(H-L^*)] < 0$.

[40] The effects of alternative constraints on the royal tax base and choice of tax instruments is developed by Brennan and Buchanan (1977, 1980).

mutual advantages achieved by this constitutional reform are clear. Moreover, once enacted the king has incentives to abide by the new procedures.

The medieval tax constitution is surprisingly stable once in place because the institutional structure is (often) subgame perfect.[41] The king cannot formally reduce the veto power of the council without substantially undermining the tax base. For example, the king cannot simply add another stage to the game in which the king can accept or reject the council's veto. In such a game, an income-maximizing king would always be inclined to raise taxes in period 3 and then overturn the council's veto in period 5, taking the entire surplus. Production would again fall to near subsistence levels and/or mass emigration might be induced, and the taxable base would again approach zero.

Nor can the king occasionally renege on his assignment of veto power to the council by suddenly calling out the army, because his future tax receipts would tend to fall in future periods. Producers would simply discount the constitutional promise and produce less to be taxed in future periods or emigrate to other communities where constitutional promises are kept. The anticipated interventions of the army or royal tax collectors thus increase the effective rate of taxation beyond the long-term revenue maximizing rate. The taxpayer response to confiscatory taxation—reduced production or exit—is credible as long as production is a costly activity for the subjects, exit is possible, and the king is not able to reduce his subjects to abject slavery.[42]

Medieval Tax Constitutions

It bears noting that this constitutional solution to the king's fiscal dilemma had many real-world counterparts in medieval Europe. To secure a more predictable or less costly tax revenue stream, medieval kings often created councils or parliaments composed of major taxpayers and vested those councils with veto power over new taxes. Perhaps the most famous of these formal agreements is the English *Magna Carta* of 1215, which among other provisions established a representative council of 25 barons that made decisions via majority rule and had the power to veto new royal taxes. Similar political arrangements that formally vested veto power in councils representing taxpayer

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[41] Tax rebellions, for example, are often consequences of efforts to add new tax bases or to increase taxes substantially on existing taxes. Such rebellions are not always military affairs, but simply widespread refusal to abide the new laws (Cohn 2004, Adams 1998).

[42] I neglect many aspects of long-term continuous dealings to avoid the ambiguities of the folk theorem, which demonstrates that a wide range of equilibria are possible if one or both parties is able to make creditable commitments to particular intertemporal responses. Note, however, that the equilibria developed above are consistent with the folk theorem. For example, if the taxpayers can make a creditable commitment to reducing their taxable surplus to zero, the behavior assumed above would be equilibrium strategies in infinitely repeated games as well.

interests were also adopted in France, Spain, Germany, and Sweden at around the same time. Palmer and Colton (1965: 31) suggest that more or less similar representative institutions emerged throughout Europe during the thirteenth century as nation states emerged.

> Parliaments, in this sense, sprouted up all over Europe in the thirteenth century . . . The new assemblies were called *cortes* in Spain, *diets* in Germany, Estates General in France, parliaments in the British Isles. Usually they are referred to generically as "estates," the word "parliament" being reserved for Britain, but in origin they were essentially the same. (Palmer and Colton 1995: 34)

In most cases, the parliaments or tax councils were characterized in writing and included members that were elected via quite narrow electorates. Their electorates consisted for the most part of major tax payers. The parliaments normally had veto power over new taxation and powers to petition the king for policy reforms, as in England, Denmark, France, Spain, and Sweden. Later kings and queens often signed accession contracts (as a condition of office) in which they promised to abide by the existing constitutional rules.

These councils recognized the significance of their tax authority. During times of crisis, for example, they would tend to extend taxes only for short periods, rather than amend the tax constitution to provide new permanent sources of revenues for the king.

Medieval councils and parliaments were not merely advisory, nor was the distribution of authority between the king and council entirely static. They were amazingly durable, lasting for many centuries in most cases. Indeed, several medieval tax councils survive to the present in modified form as the parliaments of contemporary constitutional monarchies.[43]

B. Tax Veto Authority and Parliamentary Authority over Expenditures

We next examine circumstances under which a king might voluntarily agree to cede some direct control over government programs to the council in exchange for new taxes. Such transfers of power *transform a tax council into a legislature.*

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[43]   In most cases, the medieval European parliaments were preceded by other more or less similar forms of government. For example, grand councils, courts, and *tings* often met to advise the kings of northern Europe and to affirm new kings at times of accession.

The medieval balance of authority, did wax and wane through time as kings and queens attempted to avoid the constraints of their medieval tax constitutions. North and Weingast (1989) argue that the transfer of control over government finances from the king to the British Parliament in the Glorious Revolution made the king substantially more creditworthy. From the point of view of this chapter, the Glorious revolution is considered a case in which parliament restored its veto power over new taxes. See chapter 12.

The analysis parallels that of chapter 5, but with explicit accounting of tax-revenue constraints and mathematical representations of the equilibria. Four possible transfers of policymaking power from a strong king to a weak council are analyzed: (a) partial veto power over policy proposals, (b) complete veto power, (c) partial agenda control over policy proposals, and (d) complete agenda control. Only decisive councils are analyzed, which tends to overstate the cost of shifting legislative authority to the parliament, but allows gains and losses to be evaluated from the perspective of the pivotal member of parliament. The aim is to develop a mathematically tractable model of the market for power between the king and parliament.

Most of the conclusions turn out to be "intuitively obvious," although the analysis demonstrates that there are many counterintuitive possibilities that need to be taken account of to reach them.

Constitutional Reform in Stable Political and Economic Circumstances

Suppose that the tax constitution developed above has been adopted and the king initially retains complete authority over expenditure policies. A secure king with complete control over public policy will use "his" revenue to secure his ideal combination of public services G_1 and G_2, given his veto-constrained tax revenue, T^0, and his household income, Y.[44] Substituting the veto-constrained tax revenue into his budget constraint, solving for personal consumption, and substituting the result into his utility function yields:

$$U = u(T^0 + Y - c(G_1, G_2), G_1, G_2) \tag{6.6}$$

which is an objective function with two control variables, G_1 and G_2, and two first-order conditions similar to those above:

$$U_{G1} - U_x C_{G1} = 0 \tag{6.7}$$

$$U_{G2} - U_x C_{G2} = 0 \tag{6.8}$$

Together the first-order conditions imply that the king's optimal policies are determined by his household income and the constraint imposed by the tax constitution: $G_1{}^* = g(Y + T^0)$ and $G_2{}^* = h(Y + T^0)$. As long as the king's personal income and the tax constitution are stable, these

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[44] It bears noting that tax revenue was often less important in the late medieval and early modern period than it is today. Other revenues sources normally provided more royal income than taxes per se. However, tax revenues were significant at the margin, and as demonstrated below were in the long run sufficient to produce major shifts in policymaking authority, especially in the nineteenth century when tax revenues became increasingly important sources of government revenue.

expenditure policies remain ideal as far as the king is concerned. The subjects may prefer more butter and fewer guns, or perhaps more of each with a less extravagant level of personal consumption by the king, but, under the existing institutional arrangements, they have no power to influence government services levels. They can veto new tax rates and new taxes on currently untaxed activities, but do not otherwise control the royal budget.

At this constitutionally constrained royal fiscal equilibrium, there may be additional unrealized potential gains from constitutional exchange. The council members may prefer a different combination of public services to that provided. If so, the tax council is willing to exchange higher permanent taxes in exchange for a new pattern of expenditures. It is clear, however, that the king's "agreement" is not sufficient to achieve this fiscal bargain. The king may accept a permanent increase in tax revenue from T^0 to T^1, but fail to change public policies as promised. He may simply build a new wing on one of his palaces

Granting the council veto power over *public* expenditure changes does not, in this case, necessarily secure the king's promise, because there are other dimensions of royal expenditure, namely household expenditures. The king may accept the additional revenue, but use it for private consumption, rather than to increase the desired public service(s).

Insofar as no new government service levels are proposed, *the council has nothing to veto.* The same logic holds for agenda control for cases in which the king retains veto power. Here the council may propose a new pattern of expenditure, and the king may simply veto it, leaving the status quo service levels unchanged, but increasing his personal consumption. Neither veto power nor agenda control are sufficient to secure the king's promise when existing public policies are already optimal for the king, particularly in circumstances in which the king retains complete authority over other policies. Consequently, as noted in chapter 5, the king can offer veto power or even agenda control to the council in a stable political and economic setting at very low personal cost.

Such partial transfers of policymaking authority would obtain little of value from the council, however, because the council would recognize that such procedural powers would have little effect on public policies as long as political and economic circumstances are stable.

C. The Value and Cost of Partial and Complete Veto Power in Unstable Settings

Vesting the Council with Partial Veto Power

Political uncertainty increases the value of partial transfers of policymaking power to the council and the cost of such transfers for the king. Consider the case in which the king's ideal combination of government services changes from (G^0_1, G^0_2) to (G^K_1, G^K_2) and the council has secured partial veto power over changes in G_2, "butter." In this case, the king faces two constraints on his fiscal decisions, his budget constraint $T^0 + Y - c(G_1, G_2) = C$, and a new *procedural constraint* $W(X^c, G_1, G_2) - W(X^c, G_1, G^0_2) \geq 0$, where W is the utility level (welfare) of the pivotal council member, and X^c is the after-tax consumption of the decisive member of the council. Policy G_1 can be set to maximize royal utility, but any new service level for G_2 has to make the council better off than it would have been with the original service level G^0_2. (The superscript "*0*" denotes the status quo policies. The superscript K denotes the king's new ideal point.)

The council will veto any new proposed for service G_2 that makes the pivotal council member worse off than he would have been at its current level (G^0_2). The king realizes this, of course, and only proposes public policies that will satisfy the council in this sense. Policies that maximize the king's welfare, while preserving that of the council, can be characterized by differentiating the king's Kuhn-Tucker control function:

$$U = u(T^0 + Y - c(G_1, G_2), G_1, G_2) - \lambda [W(X^c, G_1, G_2) - W(X^c, G_1, G^0_2)] \qquad (6.9)$$

The tangency solution(s) requires G_1 and G_2 such that:

$$U_{G1} - U_x C_{G1} - \lambda (W_{G1} - W^0_{G1}) = 0 \qquad (6.10)$$

$$U_{G2} - U_x C_{G2} - \lambda (W_{G2}) = 0 \qquad (6.11)$$

$$W(X^c, G_1, G_2) - W(X^c, G_1, G^0_2) = 0 \qquad (6.12)$$

Figure 6.1 illustrates the effects of the council's veto power over G_2 in the $G_1 x G_2$ plane. For purposes of the illustration, the pseudo–indifference curves of the king and pivotal council member are represented as concentric circles, as generally assumed in spatial voting models and in work that assumes quadratic loss functions. It is similar to the figures used in chapter 5 for the decisive council cases, but in this case the figures are used to illustrate some mathematical results, rather than being the engine of analysis. (Most of the mathematics appears in the footnotes.) The iso-utility lines are

not conventional indifference curves in that effects of changes in public policies on the king's private consumption are implicitly taken into account. (Otherwise the indifference curves could not be concentric circles, given the assumption that the public services are goods with positive marginal utilities over the range of interest.)

Given values of T^0 and Y, the pivotal council member and the king have a wealth-constrained ideal policy combinations that can be represented as the highest point of their respective utility mountains in the G_1xG_2 plane.[45]

Figure 6.1

Given complete control over public policy, the ideal points C and K characterize the policy combinations that the council and king would select if they had no binding procedural constraints. These points represent the policies adopted under the polar forms of the king and council constitutional template. If the king has agenda and veto power over guns and butter, he adopts the policy combination labeled K.

If in a previous period, however, the king or one of his predecessors had granted the council veto power over one of the policy dimensions, the king may not be able to adopt his ideal policy combination. The council's veto power over G_2 implies that the king's new policy proposal has to

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[45]   The assumed trace of the king's utility function in the G_1xG_2 plane is $U = U^* - (G^K_1 - G_1)^2 - (G^K_2 - G_2)^2$, and that of the council is $U = U^* - (G^C_1 - G_1)^2 - (G^C_2 - G_2)^2$.

make the pivotal member of the council at least as well off as he (or she) would have been with the status quo level of the service over which they have veto power *(G⁰₂)*. In the case depicted, the king can only achieve policy combination 2, which is some distance from his new ideal. This policy combination is "veto proof," because G_2 remains at the status quo level, which leaves the council nothing to veto.

The mathematics of the tangency solution appears to suggest that the king can do a bit better than this by proposing a policy combination like 2', which makes the pivotal member of the council as well off as he would have been at policy 2. However, both geometric inspection and the Kuhn-Tucker first order conditions imply that 2' is not feasible. Recall that the veto player chooses last. Consequently, policy 2' would be vetoed by the council to realize a policy outcome that is a bit better than either 2' or 2 from the point of view of the council, although worse than 2' or 2 for the king. The king recognizes this and will propose policy combination 2, which is the best the king can achieve in this new political setting.[46]

Granting the council veto power over G_2 can make the king a bit worse off in unstable settings, although this is not always the case. For example, had the king's preferred policy combination shifted to *K'*, rather than to *K*, his new ideal policy combination, 4, would have been accepted by the

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[46]   The Kuhn-Tucker conditions for this case can be derived from the following maximand:

$$K = U^* - (G^K_1 - G_1)^2 - (G^K_2 - G_2)^2 - \lambda\,[(G^C_2 - G^0_2)^2 - (G^C_2 - G_2)^2\,]$$

where (G^C_1, G^C_2) is the ideal point of the pivotal member of the council, labeled C in figure 6.1. Differentiating with respect to G_1, G_2, and λ yields the following first-order conditions:

$$- (G^K_1 - G_1) <= 0 \ \text{ with } G_1 \geq 0 \text{ and } G_1\,[(G^K_1 - G_1)\,] = 0$$

$$-(G^K_2 - G_2) + \lambda\,(G^C_2 - G_2) <= 0 \text{ with } G_2 \geq 0 \text{ and } G_2\,[(G^K_2 - G_2) + \lambda\,(G^C_2 - G_2)] = 0$$

$$[\,(G^C_2 - G^0_2)^2 - (G^C_2 - G_2)^2\,] >= 0 \text{ with } \lambda \geq 0 \text{ and } \lambda\,[\,(G^C_2 - G^0_2)^2 - (G^C_2 - G_2)^2\,] = 0$$

The first of the first-order conditions implies that $G_1^* = G^K_1$ or $G_1^* = 0$. Whether the constraint is binding or not, the king sets service level one equal to his ideal level, G^K_1, or equal to zero. The second of the first-order conditions implies that if $\lambda = 0$, then $G_2^* = G^K_2$ or $G_2^* = 0$. If the constraint is nonbinding, either the king sets service level one equal to his ideal or equal to zero. In the case in which the constraint is binding, that is, the threat of veto affects his policy options, $\lambda \neq 0$ and the third conditions imply that $G^C_2 = G_2$. Consequently, there are just two equilibrium strategies for the king in this setting away from the lower bound. The king always sets $G_1^* = G^K_1$. If the veto power threat is not binding, he sets the veto constrained service at his ideal level, G^C_2, otherwise he sets service level 2 equal at the status quo level $(G^C_2 = G^0_2)$.

council, because policy combination 4 is preferred by the council's pivotal member to policy combination 2, the result if G_2 reverts to the status quo level. Partial veto power can interfere with a king's policymaking power, but it does not constrain him in every case, even if his preferred policy is affected by new circumstances.

Vesting the Council with Complete Veto Power

As might be anticipated, the effect of granting the council veto power over both policy dimensions generally has a greater constraining effect on the king's ability to get his preferred policy than granting veto power over one dimension. Mathematically the effect of granting the council veto power over both government policies is very similar to that above. The procedural constraint under complete veto power is: $W(X^c, G_1, G_2) - W(X^c, G^0_1, G^0_2) \geq 0,$ and the Kuhn-Tucker first-order conditions describing the best feasible policy along the constraint becomes:

$$U_{G1} - U_x C_{G1} - \lambda (W_{G1}) = 0 \tag{6.13}$$

$$U_{G2} - U_x C_{G2} - \lambda (W_{G2}) = 0 \tag{6.14}$$

$$W(X^c, G_1, G_2) - W(X^c, G^0_1, G^0_2) = 0 \tag{6.15}$$

Only the procedural constraint differs, and the constraint again may or may not be binding.

In many cases, however, granting the council veto power makes the king worse off relative to the unconstrained and partial veto power analyzed above. This possibility can also be illustrated with figure 1. Given complete veto power, the council can now reject any policy combination that makes its members worse off than the status quo ante. This implies that the king cannot choose a policy combination outside the decisive council member's iso-utility line passing through the status quo (G^0_1, G^0_2).

If the king's new circumstances lead him to prefer policy combination K, the best that he can achieve is policy combination 3, which is inferior to policy combination 2 for the king. Policy 2 is no longer feasible. The council would now reject policy combination 2 because they prefer the original combination of services to that offered. In the case in which the council is granted complete veto power, the council now constrains the king at K', whereas, as shown above, he would not have been

constrained by a council with partial veto power. The king will be blocked by the council's veto power in all cases in which his new ideal point lies further from the council's ideal than the status quo ante.[47]

A decisive council is clearly better off with complete veto power than with partial or no veto power, in such cases. They cannot be worse off. The king would thus demand a higher price for complete veto power than for partial veto power, and the council would be willing to pay a higher

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[47] The Kuhn-Tucker first order conditions for king in this case are derived from the following KT maximand:

$$K = U^* - (G^K_1 - G_1)^2 - (G^K_2 - G_2)^2 - \lambda[(G^C_1 - G^0_1)^2 + (G^C_2 - G^0_2)^2 - (G^C_1 - G_1)^2 - (G^C_2 - G_2)^2]$$

Differentiating with respect to G_1, G_2, and λ, yields the following first-order conditions:

$$-(G^K_1 - G_1) + \lambda(G^C_1 - G_1) <= 0 \text{ with } G_1 \geq 0 \text{ and } G_1 [(G^K_1 - G_1) + \lambda (G^C_1 - G_1)] = 0$$

$$-(G^K_2 - G_2) + \lambda(G^C_2 - G_2) <= 0 \text{ with } G_2 \geq 0 \text{ and } G_2 [(G^K_2 - G_2) + \lambda(G^C_2 - G_2)] = 0$$

$$[(G^C_1 - G^0_1)^2 + (G^C_2 - G^0_2)^2 - (G^C_1 - G_1)^2 - (G^C_2 - G_2)^2] \geq 0$$

$$\text{with } \lambda \geq 0 \text{ and } \lambda [(G^C_1 - G^0_1)^2 + (G^C_2 - G^0_2)^2 - (G^C_1 - G_1)^2 - (G^C_2 - G_2)^2] = 0$$

The first of the first-order conditions implies that if $\lambda = 0$, then $G_1^* = G^K_1$ or $G_1^* = 0$. If the constraint is nonbinding, either the king sets service level one equal to his ideal or equal to zero. In the case in which the constraint is binding, $\lambda \neq 0$ and either the status quo is chosen, $G_1 = G^0_1$ and $G_2 = G^0_2$, or both policies G_1 and G_2 lie along the indifference curve passing through the initial policy position (G^0_1, G^0_2).

The second of the first-order conditions implies that if $\lambda = 0$, then $G_2^* = G^K_2$ or $G_2^* = 0$. If the constraint is nonbinding, either the king sets service level one equal to his ideal or equal to zero. In the case in which the constraint is binding, $\lambda \neq 0$ and the third constraint implies that either the status quo is chosen, $G_2 = G^C_2$, or both G_1 and G_2 lie along the indifference curve passing through the initial policy position (G^0_1, G^0_2). There are, thus, three possible equilibrium strategies for the king in this setting according to the location of the king's new ideal point. If the veto power threat is not binding because his new ideal point is closer to the council's ideal than the original policy combination, he proposes service levels at his ideal levels (G^C_1, G^C_2). If the procedural constraint is binding, that is, proposing his ideal point would be vetoed, the king may choose a combination of G_1 and G_2 such that one of his iso-utility curves is tangent to that of the Council's iso-utility line passing through the original policy combination. Alternatively, he may set both service levels at their status quo levels (G^0_1, G^0_2).

price for complete than for partial veto power, particularly at times when the king's policy preferences are likely to change.[48]

D. Partial and Complete Agenda Control

Granting the Council Partial Agenda Control

Another transferable policymaking authority by which gains from constitutional exchange may be realized is agenda control. Veto power allows the empowered party to determine whether particular departures from the status quo will be undertaken. Agenda control allows the empowered party to determine which departures from the status quo can be adopted. As in the case of veto power, the value of agenda control to the council depends on future changes in the king's policy preferences, as noted above. Without changes in his policy preferences, the king can costlessly give agenda control to the council and defend the status quo by vetoing all proposed changes.

We next analyze the extent to which a partial transfer of agenda control constrains a king's future policies.

Given partial agenda control, the council will make the specific proposals that maximize its own welfare given the king's veto power. Given agenda control over G_2, the pivotal member of the council will propose a level of G_2 that maximize his or her utility given the veto power of the king and the king's choice of G_1.

$$W = w(X^c, G_1, G_2) - \lambda[u(T^0 + Y - c(G_1, G_2), G_1, G_2) -$$

$$u(T^0 + Y - c(G_1, G_2^0), G_1, G_2^0)] \qquad (6.16)$$

The Kuhn-Tucker tangency solution requires:

$$W_{G2} - \lambda[U_X(-C_{G2}) + U_{G2}] = 0 \qquad (6.17)$$

while the king sets the policy that he fully controls, G_1, to maximize:

$$U = u(T^0 + Y - c(G_1, G_2), G_1, G_2) \qquad (6.18)$$

---

[48] Veto power is occasionally shared, as in the settings with multiple veto players analyzed by Tsebelis (2002), although this possibility is neglected in the present analysis. If veto power were the only policymaking authority available, such divisions would often lead to stalemates and worse in "zero sum" settings, as implied by Hobbes' (1651) analysis of divided sovereignty, and would more often produce conflict than opportunities for constitutional reform. Buchanan and Yoon (2000) discuss the problem of multiple veto powers in their piece on the "anti-commons." Tsebelis notes that fully rational participants in a government with multiple veto players will take the interests of other veto players into account to avoid complete deadlocks.

which requires:

$$U_{G1} - U_X C_{G1} = 0 \qquad\qquad (6.19)$$

given G_2. Policy combinations that satisfy both first-order conditions simultaneously are analogous to Nash equilibria in noncooperative games.

The geometry of granting partial agenda control to a noncooperative council can be illustrated with figure 6.1. Were it not for the veto power of the king, the Nash solution to this policymaking game would resemble policy combination 5 in figure 6.1, in which the king and the council secure their preferred level of the service over which they exercise agenda control. Given complete veto power, however, the king can do better than policy combination 5 by vetoing the council's proposed level of "butter." The result in this case is policy combination 2, which combines the king's ideal level of "guns" with the status quo level of "butter." The vetoer goes last in full knowledge of the proposal of the agenda setter.

Anticipating this, the council might be tempted to moderate its proposal for "butter" service levels, but no proposal that it makes above G_2^0 would be accepted by the king, and no service level below G_2^0 would lead to a better policy combination for the council than that of 2 because the king can keep G_1 at his preferred level (under the assumed geometry, this is a dominant strategy). In this case, granting agenda control to the council leads to the same policy as a grant of partial veto power to the council.[49]

This equivalence, however, is an artifact of the particular preference shift of the king. Had the king's ideal point shifted to K', policy combination 5 would have been veto proof and agenda control would have made the council better off than partial veto power.[50] Policy combination 2 is a

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[49] Again, gains to fiscal exchange exist at policy combination 2; however, in this case, the agenda setter cannot capture these potential gains to trade. If the council suggests the "butter" service level required for policy 5', the king would accept this, but still opt for his preferred level of "guns." Under the procedural institutions in place, the gains from fiscal exchange would be unrealized.

[50] The Kuhn-Tucker conditions for the council are derived from the following KT maximand:

$$K = W^* - (G^C_1 - G_1)^2 - (G^C_2 - G_2)^2 - \lambda[(G^K_2 - G^0_2)^2 - (G^K_2 - G_2)^2]$$

Differentiating with respect to G_2, and λ, yields the following first-order conditions:

$$- (G^C_2 - G_2) + \lambda(G^K_2 - G_2) \leq 0 \text{ with } G_2 \geq 0 \text{ and } G_2 [(G^C_2 - G_2) + \lambda(G^K_2 - G_2)] = 0$$

possible outcome under both institutions, but policy combination 4 is preferred by the king to policy combination 5. The pivotal council member, however, prefers policy combination 5 to policy combination 4. This suggests that king is somewhat worse off and the council is somewhat better off with partial agenda control than with partial veto power.

Vesting the Council with Complete Agenda Control

Granting complete agenda control to the council, while keeping complete veto power, makes the king worse off than granting complete veto power to the council. Given complete agenda control, the council would propose a policy combination that maximizes:

$W = w(X^c, G_1, G_2) - \lambda[u(T^0+Y - c(G_1, G_2), G_1, G_2)$

$$- u(T^0+Y - c(G_1^0, G_2^0), G_1^0, G_2^0)] \qquad (6.20)$$

The Kuhn-Tucker tangency solution for which requires:

$W_{G2} - \lambda [U_X(-C_{G2}) + U_{G2}] = 0 \qquad (6.21)$

$W_{G1} - \lambda [U_X(-C_{G1}) + U_{G1}] = 0 \qquad (6.22)$

$[(G^K_2 - G^0_2)^2 - (G^K_2 - G_2)^2] \geq 0$ with $\lambda \geq 0$ and $\lambda [(G^K_2 - G^0_2)^2 - (G^K_2 - G_2)^2] = 0$

The first of the first-order conditions implies that if $\lambda = 0$, then $G_2^* = G^C_2$ or $G_2^* = 0$. If the constraint is nonbinding, the council sets service level two equal to its ideal level (or equal to zero if that is less than or equal to zero). In the case in which the constraint is binding, $\lambda \neq 0$, the second constraint implies that the status quo is chosen, $G_2 = G^0_2$.

The king's optimization problem is unconstrained for service level one and constrained by the agenda chosen by the council in stage one, which he can choose to veto or not. He chooses G_1 to maximize:

$$K = U^* - (G^K_1 - G_1)^2 - (G^K_2 - G_2)^2$$

which requires:

$$-(G^K_1 - G_1) = 0 \text{ or } G^K_1 = G_1.$$

The king sets service level one at his ideal level regardless of what the Council chooses for service level 2. There are, thus, two possible equilibrium budgets in this setting according to the location of the king's new ideal point. If the king's veto power threat is not binding, the council's proposes its own ideal service level for G_2, $G_2^* = G^C_2$. If the king's veto power is binding, the council proposes the status quo level of service two is proposed, $G_2^* = G^0_2$. The seperability of spatial utility functions implies that the king always chooses his ideal level of service 1, $G^K_1 = G_1$, and, given the above option, never veto's the council's proposal.

At the tangency solution, the council chooses its utility-maximizing combination of guns and butter along the king's iso-utility line passing through the initial policy combination. Figure 6.1 illustrates the geometry of this solution with policy combination 6. Policy combination 6 is the most favorable of the policies examined for the council and the least favorable to the king. It is essentially the mirror image of the case in which the king had agenda control and the council veto power.

Given complete agenda control, *nearly all changes in the king's policy preferences make the pivotal member of council better off*. Moreover, the council can now assure the status quo ante; so, changes in the king's preferences can no longer make the pivotal member of the council worse off. There are three possible equilibrium strategies for the council in this setting according to the location of the king's new ideal point. If the king's veto power threat is not binding, because his new ideal point is closer to the council's ideal than the original policy combination, the council proposes service levels at the pivotal member's ideal point (G^C_1, G^C_2). If the procedural constraint is binding and away from the lower bound (0, 0), the council may choose a combination of G_1 and G_2 such that the pivotal member's iso-utility curves is tangent to the king's iso-utility line passing through the original policy combination. Alternatively the council may set both service levels at their status quo levels (G^0_1, G^0_2).[51]

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[51] The Kuhn-Tucker conditions for council in this case are derived from the following KT maximand:

$$W = W^* - (G^C_1 - G_1)^2 - (G^C_2 - G_2)^2 - \lambda[(G^K_1 - G^0_1)^2 + (G^K_2 - G^0_2)^2 - (G^K_1 - G_1)^2 - (G^K_2 - G_2)^2]$$

Differentiating with respect to G_1, G_2, and λ yields the following first-order conditions:

$$-(G^C_1 - G_1) + \lambda(G^K_1 - G_1) <= 0 \text{ with } G_1 \geq 0 \text{ and } G_1[-(G^C_1 - G_1) + \lambda(G^K_1 - G_1)] = 0$$

$$-(G^C_2 - G_2) + \lambda(G^K_2 - G_2) <= 0 \text{ with } G_2 \geq 0 \text{ and } G_2[-(G^C_2 - G_2) + \lambda(G^K_2 - G_2)] = 0$$

$$[(G^K_1 - G^0_1)^2 + (G^K_2 - G^0_2)^2 - (G^K_1 - G_1)^2 - (G^K_2 - G_2)^2] >= 0$$

$$\text{with } \lambda \geq 0 \text{ and } \lambda[(G^K_1 - G^0_1)^2 + (G^K_2 - G^0_2)^2 - (G^K_1 - G_1)^2 - (G^K_2 - G_2)^2] = 0$$

The first of the first-order conditions imply that if $\lambda = 0$, then $G_1^* = G^C_1$ or $G_1^* = 0$. If the constraint is nonbinding, either the council sets service level one equal to its ideal or equal to zero. In the case in which the constraint is binding, $\lambda \neq 0$ and the procedural constraint implies that either the status quo is chosen, $G_1 = G^0_1$ and $G_2 = G^0_2$, or both G_1 and G_2 lie along the indifference curve passing through the initial policy position (G^0_1, G^0_2).

E. Public Policy Opportunity Sets with Divided Authority

   The mathematical analysis demonstrates that the range of policies that are feasible for the king varies with the division of policymaking powers. Overall, it is clear that more favorable policy outcomes are often obtained by the council in unstable settings as policymaking authority is transferred to it. However, the results do not produce a simple deterministic ranking of divisions of authority. Figure 6.2A and 6.2B illustrate the typical "policy opportunity sets" for the king under different power-sharing arrangements. Figures 6.2A illustrates the feasible set for complete and partial assignments of veto power to the committee. Figure 6.2B depicts the feasible sets of policy outcomes for complete and partial agenda control. Together these figures allow the restrictiveness of the four assignments of policymaking power to be compared. The feasible sets are not convex and the relationships of the feasible policy domains to one another are not immediately obvious.

   Figure 6.2A depicts the range of policies that can be adopted under alternative assumptions about the council veto power. In the case of complete veto power, the council can block any move that will make it worse off than the status quo ante (labeled policy combination 1). The range of possible policy outcomes under complete veto power consists of those policy combinations that lie inside the decisive council member's indifference curve through the status quo policy. This is the shaded circular area in figure 6.2A.

   In the case of partial veto power, the council will also accept all such policies, but cannot block some policies that make it worse off. The council will veto any policy proposal made by the king in which the status quo level of the service over which it exercises veto power is preferred to that of the policy proposed by the king. For the spatial preference ordering assumed for the diagrams, this implies that only policies within the trapezoid are potentially acceptable. (The budget constraint of the king determines the upper bound of the trapezoid in the uncontrolled dimension.)

   Similarly, the second of the first-order conditions implies that if $\lambda = 0$, then $G_2^* = G^C_2$ or $G_2^* = 0$. If the constraint is nonbinding, either the council sets service level one equal to its ideal or equal to zero. In the case in which the constraint is binding, $\lambda \neq 0$ and the third constraint implies that either the status quo is chosen, $G_2 = G^C_2$, or both G_1 and G_2 lie along the indifference curve passing through the initial policy position (G^0_1, G^0_2).

Figure 6.2

(A: Partial and Complete Veto Power)

G_2 (Butter)

$2G_2^0 - G_2^0$

C

4

3

G_2^0

1

2

K

G_1^0

G_1 (Guns)

(B: Partial and Complete Agenda Control)

G_2 (Butter)

G_2
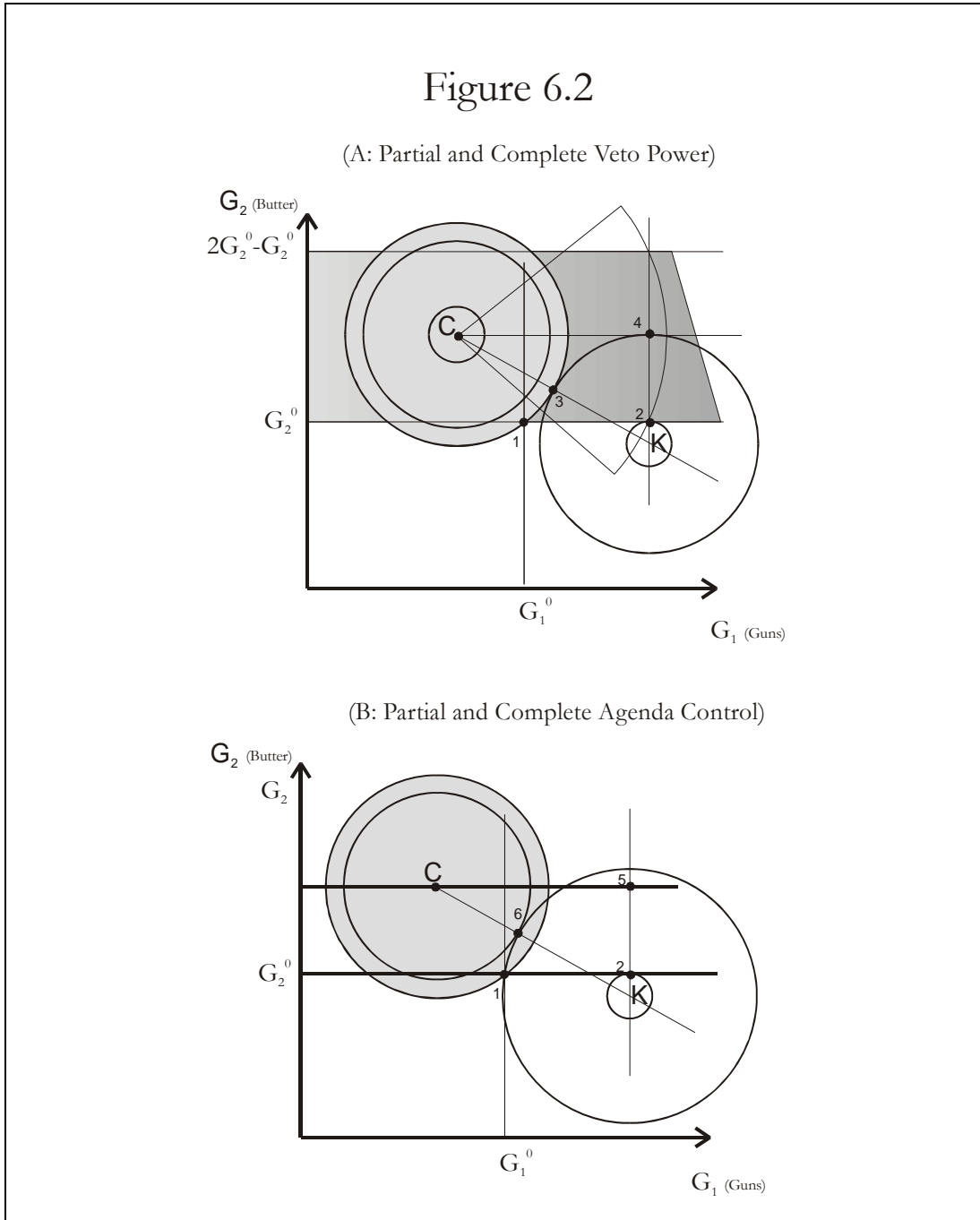
C

5

6

G_2^0

1

2

K

G_1^0

G_1 (Guns)

Figure 6.2B depicts the range of policies that may be chosen when council has various degrees of agenda control. In the case of complete agenda control, the council will only propose policies that make it better off relative to the status quo ante. (If no better alternatives are veto proof, the council proposes the status quo ante.) Consequently, the range of possible proposals is limited to those within the council's indifference curve passing through the initial policy position. For the spatial

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preferences used in our illustrations, the feasible set is a circular shaded area similar to that shaded in figure 6.2A.

The feasible policies under partial agenda control include that area plus other policy combinations that may emerge from the king's area of control given the council's proposals for the policy over which it exercises agenda control. The geometric and mathematical results above imply that the council will either propose its own ideal service level or the service level of the status quo. Consequently, the range of policy outcomes that can arise under partial agenda control include the circular area associated with complete agenda control plus additional two line segments. The upper bound of the line segments in the uncontrolled dimension (G_1) is determined by the king's budget constraint.

The more restrictive the procedural constraints, the smaller average distances to the council's ideal point tend to be and the larger they tend to be for kings.

F. The Demand and Supply of Policymaking Authority

We now characterize the willingness of the council or parliament to pay for additional control over public policy and the reservation price that the king or president requires for "selling" policymaking power.

The reservation price for the king to shift policymaking power to the council and the reservation value to the council for shifts of power to the king can be assessed given a probability density function that describes likely shifts in the king's preferences (or political circumstances) and the associated effects of alternative distributions of legislative authority on public policies. For example, if all the possible policy outcomes are considered to be equally likely in the long run, the council's reservation offer is least for partial veto power, followed by partial agenda control, then by complete veto power, and thereafter by complete agenda control. The king's reservation prices have the opposite rank order; the least binding will be offered at the lowest price in terms of new tax revenues (or other transfers from the council to the king). The marginal reductions in the feasible domain of policy become smaller as the legislative authority is shifted to the council, which suggests that the marginal cost of ceding additional powers to the parliament declines.

Let $j(G_1,G_2)$ be the probability function that describes the range of policies that the king may wish to pursue if not constrained and $k(G_1,G_2, R_i)$ the probability function describing the range of policies that the king may wish to pursue under procedural restraint R_i. The domain of *k* is a subset of that of *j*.

The lowest offer that the king would accept to adopt R_i is O^{k*} such that:

$$\int\int j(G_1,G_2)\, u(\, T^0 + Y^k - c(G_1^{**}, G_2^{**})\, ,\, G_1^{**},\, G_2^{**})\, dG_1\, dG_2 -$$

$$\int\int k(G_1,G_2, R_i)\, u(\, T^0 + O^{k*} + Y^k - c(G_1^*, G_2^*)\, ,\, G_1^*,\, G_2^*)\, dG_1\, dG_2 = 0 \qquad (6.24)$$

Similarly, the highest offer that the council would be willing to make would be:

$$\int\int j(G_1,G_2)\, w(\, Y^c - T^0 - c(G_1^{**}, G_2^{**})\, ,\, G_1^{**},\, G_2^{**})\, dG_1\, dG_2 -$$

$$\int\int k(G_1,G_2, R_i)\, w(\, Y^c - T^0 - O^{c*} - c(G_1^*, G_2^*)\, ,\, G_1^*,\, G_2^*)\, dG_1\, dG_2 = 0 \qquad (6.25)$$

where policies are set at the king's ideal for the cases of interest, as developed above.

For bounded and continuous probability and utility functions, the implicit function theorem applied to equation 6.24 implies that lowest offer that the king will be willing to accept can be written as:

$$O^{k*} = s(\, R_i\, ,\, T^0 + Y^k\,) \qquad (6.26)$$

and, from equation 6.25, the highest that the council is willing to be make as:

$$O^{c*} = d(\, R_i\, ,\, T^0 + Y^c\,) \qquad (6.27)$$

As in ordinary markets the *exchange occurs when the reservation price of the party demanding more power exceeds that of the party that currently possesses the authority of interest.* For a wide range of probability functions, it is clear that the rank order of these prices will parallel the restrictiveness of the procedural constraints.

In polar cases, there may be no intersection of the demand and supply of authority curves, because the reservation price for transfers of power is too great for the other to pay. This case is illustrated in figure 6.3 for king dominated systems with curves D_0^C and S_0^K. In intermediate distribution of authority, as with D_1^C and S_0^K, the two curves intersect, and small shifts in supply or demand will produce gains to trade. In such cases, constitutional bargains that shift authority to the parliament may be reached by trading a broader tax base, or other in-kind services, to the king in exchange for greater policymaking authority. The reverse occurs when the kings purchases additional authority from the parliament.

For constitutional bargaining between the king and council to be mutually beneficial, in king dominated or council dominated systems there must be a fairly large shock of some kind to produce new gains to trade. For example, there may be a crisis that affects only one of the parties. For

example, the king may have urgent financial needs, because of poor investments in royal enterprises or may face a new unusually threat of piracy. In intermediate case, any shocks sufficient to overcome institutional conservatism may generate new gains to constitutional exchange.

Figure 6.3
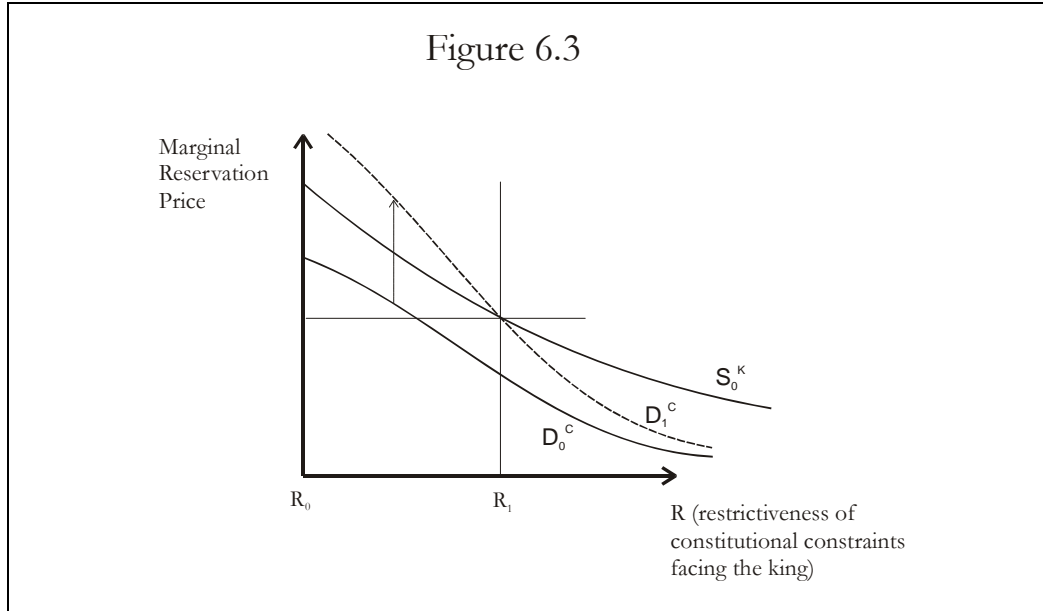
Gains to trade may arise, for example, when there are changes in untaxed wealth or royal income. A decline in the king's wealth causes his reservation price for authority to fall.

$$O^{k}*_{Yk} = [\int\int j(G_1,G_2) \, u_{Yk} - k(G_1,G_2, R_i) \, u_{Yk} \, dG_1 \, dG_2] / -[U^{e}{}_{oo}] < 0 \qquad (6.28)$$

An increase in the council's wealth causes its reservation price for political power to increase.

$$O^{c}*_{Yc} = [\int\int j(G_1,G_2) \, w_{Yc} - k(G_1,G_2, R_i) \, w_{Yc} \, dG_1 \, dG_2] / - [W^{e}{}_{oo}] > 0 \qquad (6.29)$$

Constitutional exchange takes place when $O^{c}* > O^{k}*$.

The shift from $D_0{}^{C}$ to $D_1{}^{C}$ in figure 6.3 illustrates how a change in demand for policymaking power can lead to a partial transfer of power from the king to the council. A sufficient increase in the reservation price of the council can make it willing to purchase additional policymaking power from the king, and as illustrated, the king may be willing to sell it. In the illustration, authority R_1 is transferred to the council, perhaps partial veto power over domestic spending. Within the context of

the model, such exchanges may involve amendment of the tax constitution. During a crisis, shifts of authority may be temporary, as for example, new temporary veto powers may be exchanged for a temporary increases in tax revenues.[52]

The king may also occasionally "buy back" some or all of the council's constitutional powers, in cases in which his wealth increases relative to that of the council. Even in peaceful and lawful political circumstances, the road to parliamentary democracy is not a one-way street, nor one that always leads to full parliamentary rule.

In the absence of systematic trends favoring one or the other center of policymaking authority, a random walk of power-sharing arrangements between king and council may arise as weather, disease, and technology change through time, with periods during which the council increases its power and others during which the king becomes less subject to council vetoes and agenda control.

Purchasing Power: Taxes for Policymaking Authority

Among the systematic trends that have been observed in rapidly industrializing countries are those affecting the extent and distribution of wealth. Consider the effect of taxpayer income or wealth on the level of taxation allowed by a the tax constitution. Suppose that the pivotal member of a decisive council knows the king's objective function, is assured of veto power over taxes, and knows his or her tax payments. The council thus knows that public services are set at $G^{1}* = g(Y + T^0)$ and $G^{2}* = h(Y + T^0)$ by the king under tax limitation T^0.

The pivotal member's ideal fiscal package, given the King's supply functions, would adjust the royal budget, T, to maximize:

$$U = u[Y^{C0} - s(T), g(Y + T), h(Y + T)] \qquad (6.30)$$

where $s(T)$ is pivotal voter's share of the tax revenues paid. This requires:

$$-U_X s_T + U_{G1} g_T + U_{G2} h_T = 0 \qquad (6.31)$$

This ideal tax may exceed the that allowed by the current, in which case, there are potential gains to trade, at least from the council's perspective. The ideal tax system provides revenues:

$$T^* = t(Y^{C0}) \qquad (6.32)$$

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[52]   Constitutional exchange involving councils that represent other interests, for example, religious or ideological ones may also engage in constitutional exchange. In such cases, the terms of trade may include metaphysical dimensions as well as tangible ones. For example, a religious council or chamber of parliament may exchange theological support for the king for tax exemptions.

and the pivotal council members welfare is:

$$U^* = u[Y^{C0} - s(T^*), g(Y + T^*), h(Y + T^*)] \qquad (6.33)$$

Whenever $T^* > T^0$, it can be said that parliament (the council) is willing to fund additional services and/or to pay for additional public policymaking authority. Equation 6.32 implies that this willingness to pay is affected by a subsequent increase in the wealth of the groups represented in parliament. It is clear that as parliament's income increases, the willingness to trade tax expansions for service increasaes and/or additional policymaking authority increases:

$$T^*_{Yc} = [- W_{XX}s_T - W_C s_{TT}] / - [W_{TT}] > 0 \qquad (6.34)$$

Given W concave and $s_T > 0$ and $s_{TT} >= 0$. The king's own welfare also increases with tax revenue:

$$U^*_T = U_X + U_{G1} g_T + U_{G2} h_T > 0. \qquad (6.35)$$

Consequently, a sufficiently large increase in the wealth of those represented in parliament can produce constitutional exchanges in which the tax constitution is revised in exchange for policy making authority.

Parliaments are also willing to pay more taxes to secure additional control over public policy, whenever uncertainty about the king's future policy agenda increases, because political insurance clearly becomes more valuable in such circumstances. This suggests that constitutional bargains will be more likely to be consummated towards the end of a king's life (term of office) or at the beginning of a new king's term. This insurance demand for authority is also affected by cultural and technological shifts that undermine traditional patterns of life.

Parliamentary Authority Does Not Imply Democracy

Insofar as parliaments represent more interests than the king tends to, trends in constitutional exchange that favor parliamentary authority may be said to favor democracy, as often argued by economists and political scientists.[53] It bears noting, however, that parliamentary authority and the basis for membership in parliament are controlled by different laws and that the procedures for adjusting the balance of authority between the king and parliament are different from those for changing the basis of membership in parliament.

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[53] In this sense, political liberalization and economic development are predicted to be correlated, as found in Paldam and Gundlach's (2008) analysis of contemporary transition data.

Parliaments thus can gain authority without changing the basis for membership in its chambers. England and Sweden, for example, had periods of parliamentary rule in the seventeenth and eighteenth centuries, respectively. In neither case was there a major expansion of suffrage, although in the English case there were experiments with changing the basis for membership in parliament. Given the medieval qualifications for membership in parliament—nobility and wealth—it may be said that the rise of parliament tends to replace autocracy with aristocracy.

Moreover, there is nothing about king and council governance, per se, that implies that the rise of parliament is inevitable or irreversible. Gains to trade between a parliament and a king or prime minister can also shift power from parliament to the executive during times of domestic or international crisis.[54] Parliaments may, for example, expect that the executive's better information about the problems will lead to policies that better advance broad national interests during military or economic crises. Such reforms are often intended to be temporary, but not always so.[55]

Stability of the Medieval Division of Authority

Before 1800, periods of parliamentary control over public tended to be relatively brief, because there was a tendency to return to the medieval balance of authority. Charles II was invited by parliament to restore England's medieval constitution a year after Cromwell's death in 1658. The eighteenth century "Age of Liberty" in Sweden was ended by Gustav III in 1772, partly through decisions of the Swedish Riksdag in response to a fiscal crisis. The Dutch republic had seen the rise of executive power in the eighteenth century as the office of stadhouder became an increasingly

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[54] Other possibilities also exist, of course. For example, Wintrobe (1998, ch. 11) develops a theory of the emergence of dictatorship as a consequence of democratic inaction. Kuran (1989) demonstrates how public opinion can rapidly switch from one preferred policy or form of political organization to another as a consequence of differences between public and private preferences generated by conformitive pressures. Mommsen (1995: 11–14), among others, suggests that the German Constitution of 1871 was adopted by Bismarck in large part to counter liberal and socialist lobbying groups that emerged in rapidly industrializing Germany.

[55] In some such settings, there may be a tendency to shift from one extreme to the other. In correspondence, George Tridimas notes that if the constitutional supply curve is 'flatter' than the demand curve in figure 6.3, the equilibrium (intersection point) is unstable in the sense that a series of myopic disequilibrium price adjustments is unlikely to converge to the equilibrium price. In such cases, an ever increasing (or decreasing) sequence of political bargains may continue until we hit the vertical (or horizontal) axis. The latter suggests that one of the two decisionmaking bodies tends to become all powerful. However, insofar as the supply curve is 'steeper' than the demand, as drawn, the equilibrium is stable. Small adjustments in the terms of constitutional trade move the constitution (assignment of policymaking authority) back toward the equilibrium levels characterized by the intersection of demand and supply in figure 6.3.

regal post. In the second half of the eighteenth century, George III began reclaiming powers from the British parliament, before being overtaken by health problems. The French Revolution of the late eighteenth century was reversed after the defeat of Napoleon, and a hereditary French sovereign was restored by the Congress of Vienna in 1815.

The long-run medieval equilibrium of king-dominated "king and council" systems of governance must have seemed as safe and sound as ever in 1815, except perhaps in the recently formed United States of America. And even there, the shift from the first U.S. constitution, the *Articles of Confederation*, to the modern one can be interpreted as a peaceful shift of power from a council-dominated system—the Congress—to a mixed system with greater executive authority—the new constitution created the office of president and vested it with substantial powers. (For more on these historical cases, see the historical narratives of part II.)

Yet in just slightly over a century, the long-standing king-dominated systems of governance disappeared throughout Europe. Parliaments rose in legislative and fiscal authority, and their members came to be chosen by increasingly broad electorates. Ancient tax systems based on land and tariffs were replaced with new ones based on income and manufacturing. Ancient economic systems based on monopoly privileges, family, and farming were replaced with far more open systems based on large scale commercial and manufacturing enterprises. Ancient legal and political systems based on birth, status, and/or wealth were replaced by more uniform bodies of law that applied equally to all adult men and women.

The last two chapters can account for the increase in parliamentary authority and for the "modernization" of taxation. For example, data for Great Britain assembled by Lindert (1986, table 1) indicates that the value of noble estates averaged 2032£ in 1810 and had risen to 9,855£ in 1875. Merchant estates averaged far less, 608£, in 1810, but by 1875 had risen to 11,804£, both in constant 1875 British pounds sterling. Other classes/occupations also had significant increases in wealth, although not as great as those of merchants or "titled persons." The population of nobles was essentially stable between 1810 and 1875 (rising from 22,000 to 25,000), whereas that of merchants, professionals, and industrial and building trades increased substantially (rising from 42,000 to 61,000 and from 638,000 to 2,835,000 respectively). Overall, the fraction of wealth controlled by those *outside the nobility* clearly increased substantially during the nineteenth century. It seems clear that increases in nonroyal relative to royal wealth would create new opportunities for constitutional exchange in the nineteenth century favoring parliament.

During the eighteenth and nineteenth centuries, new liberal political and economic ideologies also tended to make parliament more decisive and less satisfied with the status quo, while the power of the purse allowed it to trade tax revenue and increase royal allowances for increased policymaking authority. Royal demands for revenues increased as the cost of competitive navies, armies, and palaces increased while revenues from tariffs declined. Ideological shifts (the rise of liberalism) also tended to increase resistance to arbitrary authority inside and outside government, which further increased the bargaining power of parliament and somewhat reduced that of the king. All these changes favored constitutional reforms that shifted political authority from kings to their parliaments.

To transform the medieval king and council template into a liberal parliamentary democracy also required another series of reforms, one that broadens the electoral base used to select members of parliament and increased competition for those offices. In practice the reforms of parliament and suffrage were not usually adopted simultaneously, which suggests that these important series of reforms were caused by somewhat different factors. Nineteenth century history thus suggests that a separate analysis of suffrage reform is necessary.