

Coalitional Stability and the Gains From Trade Between the Executive and the Legislature in Brazil

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Resumo

O Congresso brasileiro apresenta um grande potencial para ganhos de trocas. O problema de coordenação dentro do Congresso é resolvido pela concessão pela Constituição ao Presidente de diversos poderes legislativos. Estes poderes incluem: 1) o poder de estabelecer o status quo através de medidas provisórias; 2) autoridade exclusiva de iniciar determinados tipos de legislação; 3) exclusividade sobre a execução do orçamento; 4) o direito de nomear seu gabinete (sujeito à aprovação do Senado); 5) enorme poder discricionário sobre empregos no governo federal. O Presidente usa estes poderes para manter a estabilidade da coalizão entre os partidos que ele representa, o que permite que se implemente uma agenda de políticas e reformas. Se o Presidente não possuísse tais poderes, seria de esperar que o processo legislativo apresentaria grande instabilidade ou uma grande paralisia. Além disto, conceder poderes preponderantes ao Presidente como forma de estabilizar o processo decisório no Congresso pode ser um mecanismo superior ao sistema com comissões fortes ou um partido dominante. O Presidente, mais do que os membros do Congresso têm os interesses nacionais na sua função de utilidade, i.e. crescimento econômico e desigualdade de renda. Dado as instituições legislativas atuais, se o Presidente não possuísse fortes poderes legislativos, esperaríamos encontrar comportamento mais individualistas pelos congressistas e políticas menos prudentes.

Classificação JEL: D73, D72, D23

Classificação Anpec: Área 04 - Microeconomia, Economia Industrial e Mudança Tecnológica e Métodos Quantitativos

Palavras chave: Modelos econômicos de processos políticos, ganhos de troca, legislativo, executivo.

Abstract

The Brazilian Congress presents great potential for gains from trade. The coordination problem of the legislature was solved by the strong powers given to the President by the Constitution. These powers include: 1) the power to establish the status quo through provisional decrees; 2) the sole authority to initiate certain types of legislation, e.g. budgetary and administrative issues; 3) the execution of the budget; 4) the ability to appoint a cabinet (subject to the approval of the Senate); and 5) immense discretion over patronage jobs. The President uses these powers to maintain coalitional stability among the parties in the coalition that he represents, which in turn enables policy reform, along with expected stability of the reforms. Absent the strong powers of the executive, policies would be either highly unstable or in gridlock. Furthermore, strong Presidential power as the stabilizing factor appears to be a superior mechanism over committees or dominant parties. The President, more so than members of Congress, has national interests in his utility function, e.g. economic growth, and income equality. With the extant Congressional institutions in place, if Congress curtailed the power of the President, we envision more pork and less prudent developmental policies.

JEL classification: D73, D72, D23

Keywords: Economic models of political processes, executive, legislatures, gains to trade.

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Section 1 - Introduction

Policy stability is important for economic development because it induces private investment, provided the policies are not punitive to investors. There may be a fine line between the ability to reform when needed, and policy stability. In short, policy stability should not be confused with policy gridlock. In principle, there always exists a potential policy that could command a majority and displace the status quo policy. Yet, for the most part we observe relative stability in policy outcomes in developed democracies. The secret to the stability is what Shepsle and Weingast (1981) referred to as a “structure induced equilibrium.”¹ One of the fundamental dilemmas in all representative democracies is how to induce stability in governmental outcomes while maintaining the ability to reform. Governments need a certain amount of elasticity in the policy space to adapt to changing domestic or international conditions. For the U.S. Congress, there is still a debate as to the relative contributions of party or committee to maintaining stability but there is a consensus that jointly party and committees make policy outcomes relatively stable.

We propose to analyze the mechanism in Brazil for inducing policy reform, along with expectations of policy stability. Brazil has only relatively recently (1985) re-emerged from a military government and parties and committees are far too weak to induce stability. Our analysis rests on the existence of strong executive power that in turn enables the President to mold a stable coalition in Congress. The coalition then functions as a strong party, though with an important caveat: the President is necessarily the leader of the coalition. Without the President at the helm of the coalition, it would be inherently unstable. Like most cartels, some enforcement mechanism is necessary to ensure compliance and prevent defections.

As is the case of its American counterpart, the Brazilian Congress presents great potential for gains from trade, as well as similar kinds of problems concerning the enforcement and durability of such trades. Although there is a committee system in the Brazilian Congress it does not fulfill the same purpose as that suggested by Weingast and Marshall (1988) for the case of the US Congress. Pereira and Mueller (2000) show that party leaders routinely change deputies from one committee to another, even against their will, so that having a committee seat does not guarantee property rights over the agenda of the committee. Furthermore, bills can be (and are) routinely taken out of committee by the College of Leaders.² As a result committees are not in a position to coordinate legislative exchanges.

¹ The argument by Shepsle and Weingast does not rely on institutions necessarily emerging to induce an equilibrium but only that there is pressure to capture the gains from trade in governmental bargaining by the implementation of institutions. Indeed, the committee system most likely did not emerge for this reason but was a failed move by Henry Clay to garner support for his bid for the presidency. See Jenkins 1998. The literature on the roles played by parties and committees is vast. For a useful survey see Cox and McCubbins (1993).

² The College of Leaders is composed of the President of the House, the leaders of all parties, and a non-voting deputy appointed by the President. It arose informally during the drafting of the 1988 Constitution in order to expedite deliberations. Party leaders met prior to the constitutional sessions to negotiate the proposals that would be taken to the floor. The College seemed to suit the preferences of the party leaders and it became institutionalized in the House's legislative regiment in 1989 (Figueiredo and Limongi 1996: 31-36). The College of Leaders has close control of the legislative agenda deciding which bills are taken to the floor. One of its main instruments for this purpose is the use of urgency petitions (discharge petition), which take a bill from a committee and put it in the next day's order of business to be voted on the floor. Decisions within

Similarly parties cannot play the coordination role because there are too many parties and no one party is large enough to ensure stability. Currently there are 7 effective parties in Brazil. It is conceivable that a Congressional institution could arise that would enable a cartel arrangement (coalition) to act as a dominant party but so far this has not happened and we will argue that it is unlikely to happen given the powers of the executive.

For our purposes the most notable feature that emerged from the Constitution of 1988 was the extent of legislative powers conferred to the Executive.³ The powers of most importance are: 1) the power to establish the status quo through provisional decrees; 2) the sole authority to initiate certain types of legislation, e.g. budgetary and administrative issues; 3) the execution of the budget; 4) the ability to appoint a cabinet (though like the U.S. this is subject to the approval of the Senate); and 5) immense discretion over patronage jobs. We will elaborate briefly on each of these powers.

Provisional Decrees

The President has the power to change the status quo policy by issuing decrees that remain in force for 30 days unless overturned by a majority vote in a joint session of Congress. After 30 days the President can reissue the decree. Provisional decrees have been used extensively and increasingly since 1988. According to Figueiredo and Limongi (2000a: 155), from 1989 to 1997, Presidents issued 446 provisional decrees (without counting reissues) and Congress rejected only 3%. Monteiro (2000) computed the number of provisional decrees in effect every month (including reissues) for each bill enacted through regular legislative procedures. During President Cardoso's first and second term that number oscillated from 1.8 decrees per regular bill in April 1995 to 6.5 in July 1999, with a clear increase in the trend over time. The average life of a provisional decree over this period was approximately 20 months.

Exclusive Initiation Rights

The executive has exclusive constitutional rights to initiate budgetary and administrative legislation. Budgetary legislation involves the elaboration and subsequent changes to the budget. Administrative legislation includes: laws that create new ministries, agencies and even public corporations; new positions within the public sector; the mandates of the public entities; and the determination of wages within public entities excluding Congress and the Judiciary. Presidents use their exclusionary rights often and successfully: from 1989 to 1994 the President initiated almost 70% of the 1,259 laws approved by Congress from 1989 to 1994 - 41% were budgetary, 10% administrative and 18% provisional decrees (Figueiredo and Limongi, 1996: 69). The President also initiated successfully an additional 10% of the laws passed in areas over which he does not have exclusive rights. Cardoso continued the same pattern: he initiated 80.5% of all enacted legislation from 1995 to 1998 (Pereira and Mueller (2000: 48).

Execution of the budget

The executive office not only initiates the budgetary process but also carries it out. After the executive submits a bill to Congress, the legislature may amend it. Many of these amendments entail pork barrel projects in a legislator's district. After Congress as a whole amends, the budget goes first through a Combined Budget Committee that prunes out some pork.⁴ From Congress the bill goes back to the President who has line-item veto power. Once a bill is passed the President decides which amendments get executed, based on political and budgetary considerations. For example, the President

the College of Leaders are taken by majority vote weighted by the proportion of deputies in each party, so that the majority coalition is able to control the decision making process.

³ For descriptions and analyzes of the organization of the Brazilian Congress see: Figueiredo and Limongi (1996, 2000a), Pereira and Mueller (2000), Pereira (2000).

⁴ Figueiredo and Limongi (2000b) argue that the members of the Combined Budget Committee are part of a coalition within Congress that aligns itself to the President.

can argue that he will not implement an amendment because of insufficient tax receipts to cover the expenditure. Discretion over execution gives the President enormous power to reward or punish legislative behavior. Pereira (2000) shows that the President uses his discretion strategically.

Cabinet Appointments

One mechanism by which the President rewards legislative behavior is through Cabinet appointments.⁵ This power is used throughout a President's term to reward or punish voting behavior in favor of or contrary to the President's preferences. Throughout his terms, Cardoso has been explicit about this mechanism in the media.

Patronage

Patronage positions are numerous. Fleischer (1998) states that the executive controls over 400,000 jobs throughout Brazil. These positions range from cabinet positions to second and third rank jobs, which in most countries would be civil service appointments. Rather than simply rewarding friends who got out the vote, some of these positions go to standing members of Congress, suggesting that these positions can bring influence or wealth. Indeed in many instances, time spent in Congress is an investment made to secure an executive appointment.

As a result of these five powers the President has dominated the legislative agenda both in timing and content. The legislature rarely defeats the proposals of the President.⁶ The preponderance of the Executive in legislative procedures accounts for the claim by some scholars that the Brazilian Congress has abdicated its main constitutional authority to the Executive.⁷ We will argue that this notion goes too far because Congress as a whole has the power of veto to resist the Executive's advances, or even to change the rules that are the underpinning of the Executive's powers. The fact that it has not done so suggests that a majority of members of Congress benefit from the status quo as compared to a counterfactual world of multiple parties facing a severe collection action problem in the legislative arena. The College of Leaders has the potential to organize legislative exchanges but it currently lacks any enforcement mechanisms for legislative exchanges. In short, outside of the powers of Presidency, there is no apparent extant institution within Congress that could improve on the status quo. The powers of the executive fill this void, enabling members of and parties within the coalition to achieve many of the gains from trade that arise through other mechanisms (e.g. committees) in other countries.

Section 2 – A Model of the Brazilian Congress

In order to model the organization of Congress it is necessary to identify the players and to specify their utility functions. All legislators belong to a political party and parties either belong to the government's coalition or are part of the opposition. Both of these groups interact in congressional proceedings, constrained by the legislative institutions, and subject to the powers of the executive.⁸ We assume that the parties are able to discipline their members.⁹ The coalition and the opposition, on

⁵ See Amorim Neto (1994 and 2000) for analysis of cabinet appointments in Brazil.

⁶ See Figueiredo and Limongi (1996 and 2000a) for descriptive statistics.

⁷ This thesis is defended for example by Monteiro (1997) and Pessanha (1997), cited in Amorim Neto (2000: pg.8) and by Monteiro (2000).

⁸ Figueiredo and Limongi (2000b pg.7) argue that since the Executive forms a coalition in Congress, "...the Legislature can be divided into two large groups with diverging interests: the situation and the opposition."

⁹ This is a controversial issue among students of Brazilian politics. The existence of party discipline within Congress has been strongly argued by Figueiredo and Limongi (1996, 2000a, pg.162). Examining the data for the period of 1989-98 they show that when a party in the coalition supported the President, its individual members generally did too, and when the party did not support the President on an issue, most members followed the party. The lack party discipline on the other hand has been argued by Ames (1995, 2000), Mainwaring (1993, 1997, 1999) and Lamounier (1994a, 1994b).

the other hand, face the usual coordination problems, however the coalition is able to overcome this by having the executive at the lead.¹⁰

The motivation of the coalition parties is described by their utility function, which has as arguments policy outcomes and patronage from the Executive.¹¹ That is, each coalition party has specific preferences over the proposals that get voted in Congress, but it may be willing to accept less favorable bills if compensated with patronage. There is thus a trade-off between outcomes and patronage that will be the source of the gains from trade. The utility function of coalition party i is $U_i^K(-\mathbf{a}_i|K_i - x|, V_i(R_i))$, where \mathbf{a}_i is a parameter that measures the intensity of party i 's preferences regarding policy outcomes, K_i is its preferred point, x is the approved policy, R_i is the amount of patronage received, and $V_i(R_i)$ is a function that measures the value of the patronage to the party.¹² This utility function reflects the fact that the party's utility decreases as the policy outcomes move further away from its preferred point K_i , but it increases with patronage.

The President's utility also has two arguments, policy outcomes and the cost of providing patronage. Clearly the President has a stake in which bills get approved. His preferred point is P and his utility decreases the greater the distance of the approved bill to this point. The President uses his legislative powers to pull the final outcome as close as possible to P , however he can also use his control over patronage for the same purpose. Providing patronage is not costless so the President incurs a cost, $C(R_i)$, in order to compensate party i for voting differently from its preferred position, where $C_R > 0$ and $C_{RR} \geq 0$. The President's utility is thus $U^P(-\mathbf{b}/P-x/, C(R))$, where \mathbf{b} is the preference intensity and $R = \sum_i R_i$.¹³

Executive interaction with a single party

In order to describe how the President uses his powers to coordinate the coalition we first model his interaction with a single party. That is, we assume a single party has enough votes to approve a given bill and all other parties are in the opposition. Subsequently we will analyze the more realistic situation where the president needs the support of an n party coalition to approve the bill. Figure 1 shows, along a single dimension, the preferred point of the President, of party K_i and the median of the opposition parties. Also shown is a hypothetical status quo point for a given policy. The position of each player was chosen to reflect the approximate preference of each player in the current Congress (51st legislature, see Leoni (2000) and data in footnote 10). With policy at the status quo point, party

¹⁰ Although Brazil's political system is composed of more than 17 different parties there is empirical justification for treating it as a bipartite system. Leoni (2000), applied the W-NOMINATE procedure (Poole and Rosenthal 1997) to the Brazilian Chamber of Deputies using roll call data from 1988 to 1998. His results show that the first spatial dimension explains over 90% of the deputies' individual votes for the 50th legislature (F.H. Cardoso, 1995-98). This justifies the use of a single dimensional issue in the model presented here. Also, the results show a clear spatial divide between the government's coalition (PMDB, PSDB, PPB, PTB and PFL) and the opposition. Considering the first dimension the spatial location of the medians of the major parties in the 50th legislature are as follows (range from -1 to 1):

PT -0.826, PDT -0.514, PMDB 0.435, PSDB 0.457, PPB 0.518, PTB 0.546, PFL 0.682.

¹¹ In our model the term "patronage" represents the various types of advantages and compensation that the Executive can bestow to the members of the coalition (cabinet positions, posts in the federal government, executed amendments, electoral support, etc.)

¹² In order to simplify we assume that preferences are additively separable in policy outcomes and patronage. The parameter \mathbf{a} measures the absolute value of the slope of the coalition party's utility function, see Figure

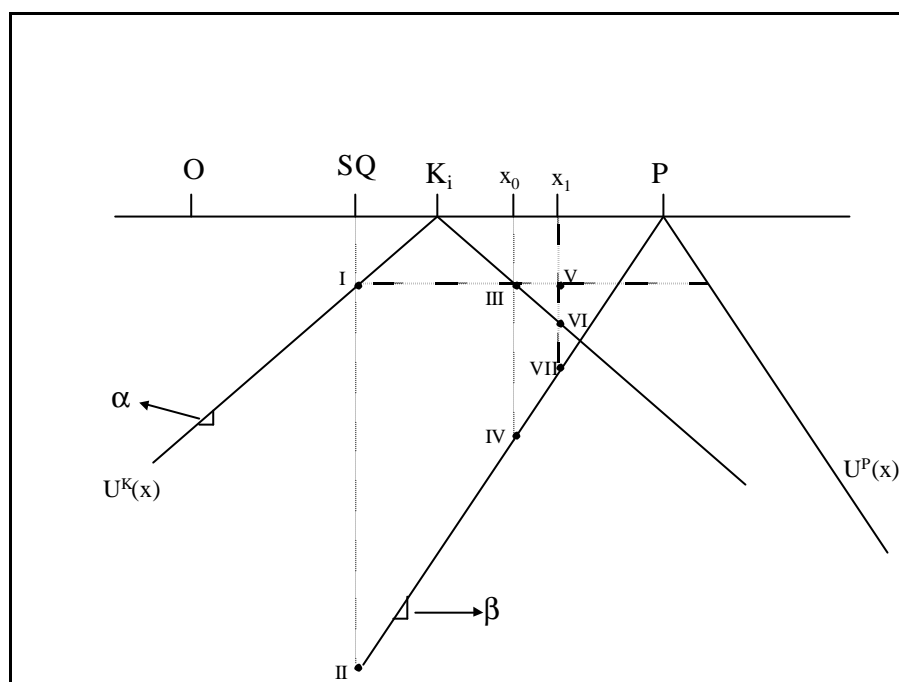
1. It is assumed that $U_1^K > 0$ and $U_2^K > 0$, where the subscript refers to the argument in the utility function.

We assume additionally that $V_R > 0$ and $V_{RR} \leq 0$.

¹³ It is assumed that $U_1^P > 0$ and $U_2^P < 0$.

K_i 's utility is at point I and the President's at point II. This is a low utility for the President since the status quo is far from his preferred point. Following the discussion in the previous section, it is assumed that the President has control over the agenda so he is able to choose which proposals get put to a vote. The President can improve on this situation by initiating a proposal to move policy to point x_0 . Because the party's utility at this point, III, is the same as at the status quo, I, it will support the proposal.

Figure 1 –Policy Choice Without the Cost of Patronage



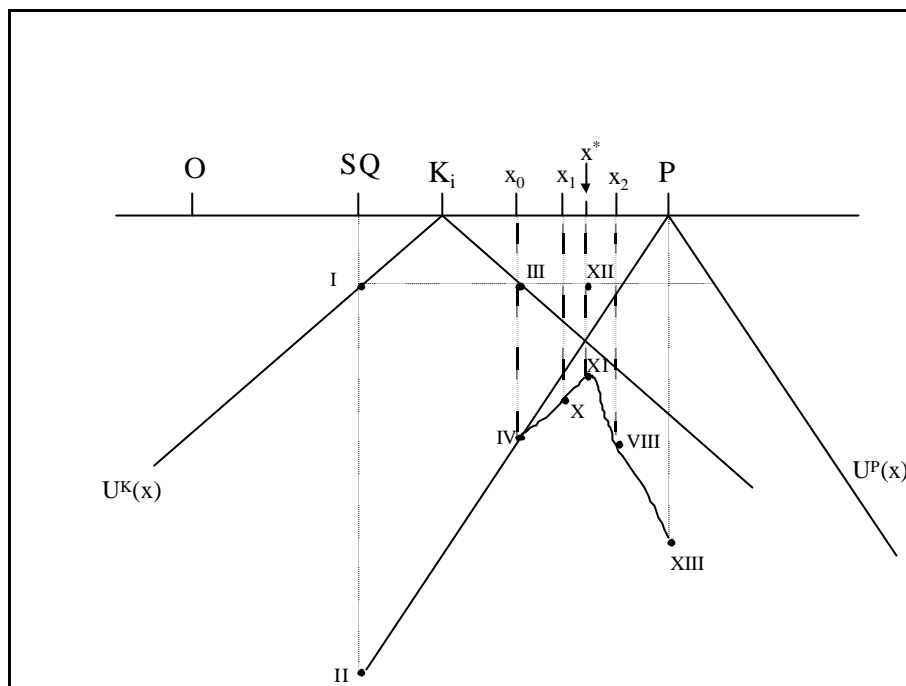
With policy at x_0 the President is better off than at the status quo, an improvement in utility from II to IV. He doesn't have to be content with x_0 , however, because he can use his control over patronage to try to move policy even closer to his preferred point. Suppose for example that the President tried to achieve a policy to the right of x_0 , such as x_1 . At this point K_i would receive the utility represented by point VI, which is worse than III, the utility from policy x_0 , so it would block the proposal. But by offering patronage the President can compensate the party for the loss represented by the vertical distance from III to VI, thus convincing it to pass the proposal moving policy to x_1 .

If the trade offered by the President were costless to him, then his utility would pass from point IV to point VII. However, providing patronage involves a series of costs represented by the function $C(R_i)$. These costs arise for two reasons. The first is the opportunity cost to the President of depleting his capital, since the patronage used to purchase support for a given set of causes cannot be used for other ends. The second is the efficiency cost that arises from the fact that patronage, by transferring the right over specific decisions to members of party K_i , implies that policies and resource use in those areas may be distant from those that the President would prefer.¹⁴ Note that the institutions in Congress and the Executive influence the level of costs that determine the amount and quality of patronage a President has to offer, as well as the level of transaction costs involved in doing so. These issues will be explored in section III.

¹⁴ There may also be a public opinion component to this cost given that the media tends to denounce the use of patronage as if it were less than legitimate.

President to make a proposal to change policy from the status quo at SQ to point x^* . The party would have to be compensated by an amount equivalent to the utility difference between XII and XI, and would remain just as well off as it was at the status quo. The opposition, of course, will be much worse off.

Figure 3 - Equilibrium outcome for one party majority



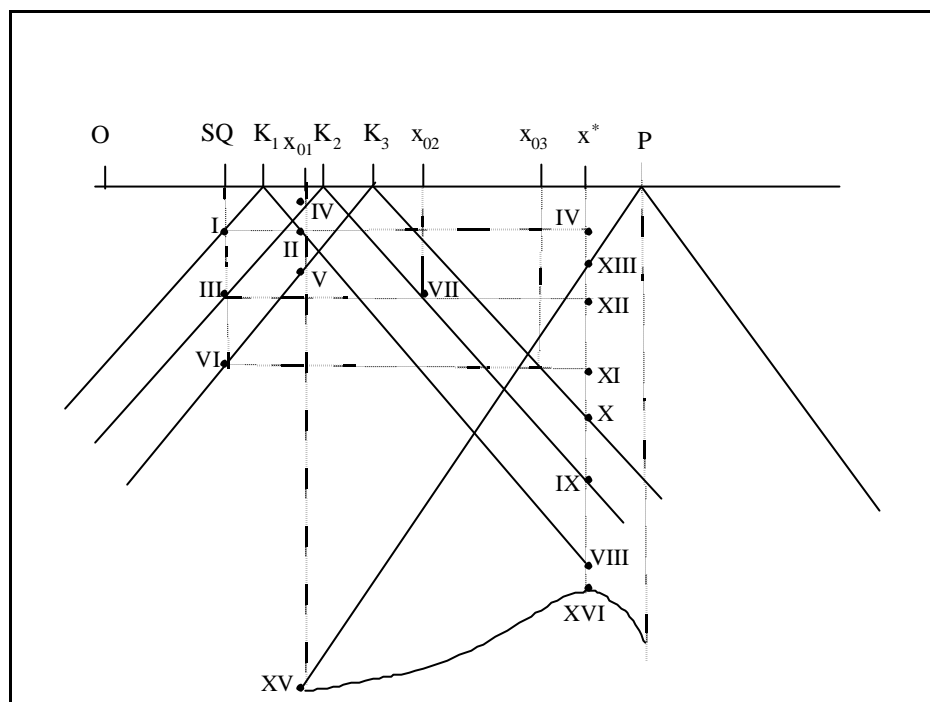
Executive interaction with n parties.

Suppose now that there are three parties in the coalition, K_1 , K_2 and K_3 , and that each party has one-fifth of the seats in the chamber, with preferences as shown in Figure 4. The opposition parties hold the remainder of the seats and are all to the left of the coalition parties. Suppose also that party leaders are able to control their members so that all party members vote united. In this example, therefore, all three parties in the coalition must vote together to approve a bill that will improve on the status quo for the president. If the current policy is at SQ , then the best that the president can do without the use of patronage is to exercise his agenda power to move policy from SQ to point x_{01} . At this point K_1 is at the same utility level as before ($U^1(I) = U^1(II)$) and K_2 and K_3 are better off ($U^2(IV) > U^2(III)$ and $U^3(V) > U^3(VI)$), so all three parties support the change and it gets approved. The president's utility will have improved to point XV.

If the president can use patronage, then he can move the policy beyond x_{01} and closer to his preferred point P . How close he can get the policy to P will depend on existing potential for gains to trade with each party, that is, on the relative levels of $V_i(R_i)$ and $C(R_i)$. For any point between x_{01} and x_{02} only K_1 needs to be compensated with patronage, for both K_2 and K_3 will be better off than at x_{01} . The amount of patronage that must be given for K_1 to continue supporting the bill increases as the new proposal moves to the right, for the patronage must keep the party's utility at the same level of point II. The president will only be willing to go as far as x_{02} if the cost of that patronage does not outweigh his utility gain from getting policy closer to his preferred point. If the cost is sufficiently high the president will choose to leave the new policy at the point where the marginal cost of patronage equals

the marginal benefit of moving closer to P , and that point will be the new equilibrium. If at x_{02} the marginal cost is still below the marginal benefit, then the president may move the policy even closer to P , however now K_2 will also have to be compensated with patronage so as to keep its utility at the same level as at point VII. K_3 will still be better off than at SQ so it will support the change without the need for patronage. If the marginal cost is still lower than the marginal benefit at point x_{03} then a policy to the right of that point may be proposed, but K_3 will have to be compensated as well.

Figure 4 – Executive interaction with three-party coalition.



An equilibrium at point x^* to the right of x_{03} is illustrated in figure 4. At that point the president's utility, without counting the cost of patronage, is at point XIII. But the parties in the coalition will only approve the bill proposing this new policy if they are compensated for being made worse off as compared to the status quo. In particular, K_1 would have to be compensated so as to raise its utility from VIII to IV, K_2 from IX to XII, and K_3 from X to XI. The cost of providing this patronage to the coalition reduces the president's utility from XIII to XVI. The figure shows the locus of the president's utilities for all points between x_{01} and P . The highest utility obtainable by the president is at point XVI which is attained by passing policy x^* . This policy is the point where the marginal cost of patronage equals the marginal benefit of moving policy closer to P and is therefore the new equilibrium. The president's problem for n parties in the coalition is presented in the appendix.

The model presented above stylizes the main forces that we believe mold the relationship between the executive and its coalition in Congress. There are several characteristics of that relationship that are not explicitly addressed in the model that must also be considered. The first is that the analysis so far has been made in the context of a one-off negotiation over a single bill. In actual fact however the relationship is a recurring one involving a whole series of bills and other procedures besides plenary voting. Therefore the exchange of support for patronage may not be tallied

on a bill-by-bill basis, but rather as the cumulative support provided by the party during the legislative year. Only exceptionally is there specific negotiation over individual bills that are particularly controversial and high profile (some examples involving pension reform are given in section 4). The fact that the executive and the coalition play a repeated game helps ensure cooperation, as a party will be willing to forgo a chance to cheat on any given bill so as not to upset the relationship.

Another characteristic of the relationship between the executive and the coalition during the two terms of President Cardoso is that the coalition held a supermajority of seats, approximately 66% in 1994 and 74% in 1998. This means that it was often the case that the executive would be able to pass several bills even without the support of some of the parties in the coalition. This fact also mitigates the weight of our assumption that party leaders are able to perfectly control their members. Even if some members of each party vote against or abstain on any given proposal, the coalition will still be able to approve the bill. This allows some parties or individuals to oppose, with the executive's concurrence, some bills that are particularly harmful to their constituencies, thus avoiding the electoral cost of supporting the bill. Of course the leeway is less in the case of constitutional amendments, which require a three-fifth majority (60%) and usually involve the more important issues.

Section 3 – Gains From Trade in the Brazilian Congress

The gains from trade are illustrated in Figure 3. If the legislative institutions were such that the President still retained agenda power but did not have the ability to offer patronage, then the best he could do would be to propose x_0 . This would imply a utility equivalent to point IV for the President and a utility equivalent to point III for the coalition party. This represents an improvement for both sides considered together (President plus the party) compared to the status quo where utilities were the same for the party but much lower for the President. But it is an inferior situation compared to that of the President offering patronage, because with patronage the President can improve his position ($XI > IV$) and the party is no worse off ($XII = III$).

The gains from trade, as always, arise from one actor having property rights to a good that is more highly valued by another. That is, they arise when the functions $C(R_i)$ and $V_i(R_i)$ are such that the President gains more utility by giving patronage than the utility cost he incurs in doing so, and the party gains more utility from the patronage than it loses by having policy move away from its preferred point. Clearly some issues are sufficiently dear to the party that it would require more patronage than the President would be willing to offer. In such cases the best that the President could achieve would be x_0 (or to remain at the status quo in the cases where SQ is between K_i and P .) In such cases the President would not even bring the proposal to a vote, which explains why some crucial issues, such as political system reform, are consistently being postponed. Occasionally the President may miscalculate and propose a bill that will be rejected, however such cases are rare.

Our model implies that all of the gains from trade go to the President, while the coalition parties remain just as well off as they did at the status quo. This result derives from the agenda power held by the President.¹⁵ If the legislative rules were such that the President could not influence the agenda, and assuming that the same coalition were able to remain united, then the coalition could propose a bill at its preferred point and have it approved, because it has a majority of the votes to pass the bill and override any vetoes. If the legislative rules allow the President to offer patronage, then he could still pull policy towards P , but the final outcome will be further from his preferred point than in the case where he had agenda power. However, it is the agenda power of the President that provides a

¹⁵ If there was a coordinating mechanism within the coalition that would enable them to credibly commit to a veto even when the President's offer was in the interest of some members then the coalition would be a position to extract the lion's share of the gains from trade.

structure-induced equilibrium that prevents cycling problems and provides stability to the coalition and policy decisions.¹⁶ If the President did not have agenda power and there were no other institution that had this effect, such as a strong committee system, we expect that the coalition would break and outcomes would become unpredictable. In short there is currently no legislative institution that can solve the collective action problem within Congress of monitoring and enforcing legislative exchanges.

There is considerable evidence that Presidents have appointed their cabinets so as to create and stabilize coalitions. Amorim (2000:pg.15) shows that by “forming a coalition government Presidents exchange the benefits of ministerial portfolios for partisan support in the legislature.” He employs a specific methodology to distinguish coalition governments from co-optation governments and concludes that most cabinets since redemocratization can be considered highly coalescent.¹⁷ President Cardoso, for example, has clearly appointed a coalitional cabinet, fine-tuning it according to the performance of each member party in Congress.

Patronage can be at much lower levels than cabinet posts. Patronage includes a wide variety of jobs in governmental agencies, departments, secretariats, and in the bureaucracy in general. These are often second and third rank jobs, and include both jobs for the deputies themselves as well as the right to appoint who will fill the position. Pereira (2000: pg. 110) presents some anecdotal data collected from newspapers of deputies explicitly stating to have voted for certain bills in exchange for the right to appoint names for specific posts, such as the Regional Superintendent of the federal Railroad in the state of Paraná.¹⁸

The major conclusion from the discussion above are summarized in the following result:

Result 1 – The Brazilian legislative rules are such that there are significant gains from trade to be had for the members of the coalition and the executive from the exchange of support for patronage. The President’s agenda powers guarantee the stability of the relationship and allow him to appropriate most of those gains.

Another issue of interest is the level of transaction costs between the President and the coalition parties; the higher are transaction costs the more difficult it is to capture the gains from trade. We argue that the President or members of Congress can influence the transaction costs. In the model a reduction in transaction costs can be seen as a parametric shift in the President’s cost function $C(R)$, that allows him to provide patronage - or some other good that is valued by the coalition - at a lower cost than before (see derivation of comparative static results in Appendix I).

The effect of a parametric reduction in transaction costs is to move the policy outcome closer to the President’s preferred point. In Figure 2 it represents a lower downward shift of the President’s utility curve for any given movement of the policy towards P . This happens because the President and the coalition are able to make their exchanges more easily, allowing more gains from trade to be realized from the exchange of the same amount of patronage.

¹⁶ Santos (1997) provides a similar analysis of the use of patronage by the President and the importance of agenda power.

¹⁷ See Amorim Neto (1994) for a comparative analysis of the cabinet formation process in the periods 1946-1964 and 1985-1992.

¹⁸ Figueiredo and Limongi (1996: pg. 26) argue that unless a deputy is able to rise to one of the few key positions in the House, such as the College of Leaders, the legislative career is relatively unattractive. Consequently many deputies view their role in Congress as a stepping-stone to more attractive positions in the Executive power both at state and federal level.

Result 2 – Changes that reduce the cost of transacting between the Executive and the coalition parties, lead to greater gains from trade, and policy outcomes more favorable to the Executive.

Policy outcomes can also be affected by changes in $V(R_i)$, the function that describes the value of the patronage to the members of the coalition. This value depends on how the patronage translates into either votes or wealth. Changes in legislative or electoral rules, or changes in the voter's preferences or behavior, may alter this function. In appendix I it is shown that a parametric increase in the value of patronage to the legislators implies more favorable policy outcomes to the President. For example, if the President is undergoing a period of intense popularity it will be more valuable for a party or individual to hold or control a governmental post, as this popularity may rub off onto those seen by the electorate as a participating in the government. As another example, the easier it is for the legislators to use the patronage so as to benefit themselves, the more highly it will be valued. If the country's institutions make it more acceptable for a legislator to derive rents from a pork barrel project taken home, then the execution of a personal amendment to the budget is valuable to a legislator.

Result 3 – The larger the benefit that the members of the coalition are able to derive from a given amount of patronage, the greater the gains from trade and the more favorable will be policy outcomes to the Executive.

Section 4 – Evidence

Pension Reform

The success rate of the Brazilian Executive in getting its projects approved in Congress has been impressive. Of the 1,881 bills presented by the various presidents from 1989 to 1997, 77% were approved and only 1.3% were rejected, the remaining having been withdrawn or still in progress (Figueiredo and Limongi 2000a; 155). The performance of the Cardoso Presidency has been even stronger with an approval of 95.3% of its proposals in the House during his second term (Jornal do Brasil, 2001). At first sight this record may lead one to believe that the Executive is able to pursue its agenda with practically no interference from Congress. However, the same outcome can also be explained by a relationship between the Executive and the Legislature as modeled in the previous section. The Executive achieves a high rate of success in getting its proposals approved through its power to set the agenda together with the strategic use of patronage. Providing evidence to support this model is not easy, because a high rate of approval is predicted by both hypotheses.¹⁹

The percentage of Presidential bills approved per se does not provide much information on the prior explicit and implicit bargaining between the Executive and Congress in order to assure approval. For many proposals the preferences of the coalition are close to the preference of the President and approval follows without bargaining. In other cases preferences are further apart but the combination of patronage and compromise in changing the policy leads to approval. In still other cases the preferences are so divergent that no such compromise is feasible. When the President perceives preferences as widely divergent, he most likely will withhold the proposal rather than face defeat.²⁰

According to our first result in the previous section there are significant gains from trade to be had from the exchange of support for patronage. Evidence of patronage should be particularly visible in those instances where preferences diverged but not so much as to rule out exchanges. We should expect to find that the voting behavior of members of the coalition are rewarded and punished by the

¹⁹ Other authors that have stressed the importance of patronage in executive-legislative relations in Brazil are Ames (1995), Amorim Neto (1994, 2000), Figueiredo and Limongi (1996), Pereira (2000), Santos (1997).

²⁰ This is consistent with the lack of legislation on reforming taxes and the political system, two areas where reform is urgently needed.

executive in the following ways: (i) granting or removing the right to make appointments to patronage positions and (ii) executing or failing to execute the amendments in the budget related to specific legislators. Although there is systematic data available on individual amendments (which we will describe below), there is no systematic data on posts in the federal government that have been assigned to deputies. It is usually quite clear which political party, and sometimes even which individual within a party, has been given property rights to appoint cabinet members and several other high-ranking positions. Even with lower positions, such as the head and directors of local branches of many federal companies, pundits and the press will often comment on which congressman choose the appointee. However, given the huge number of posts available for negotiation (Fleischer 1998, estimates this number at 400.000), the unofficial nature of the link between patron and appointee and transitory nature of appointments, it is very difficult to collect systematic information.

As a less heroic alternative to assembling a large data set on the exchanges of votes for patronage, we will examine the evolution of pension reform. We choose pension reform because it is a key element in the President's plans for economic growth and stabilization, and the reform process has been contentious. The attempts at reform are ongoing and started six years ago. Cardoso sent to Congress his first proposal on pension reform in March 1995, shortly after he took office. (See Table 1 for a chronology of activity.)

Pension reform is a particularly good illustration of our model because it is an integral part of what has come to be known as the second generation of structural reforms. The first generation involved measures to deregulate markets, privatize public services, break state monopolies and open the economy to foreign investment. During Cardoso's first years in office, the government successfully tackled inflation and put most of the first generation reforms in motion. Cardoso has found the second generation of reforms much more difficult to get through Congress. In addition to the reform of pensions, other items include the reform of civil service, the judiciary, the political system and taxes. For Cardoso the reforms are crucial for price stability and continued economic growth.

Table 1 – Chronology of Pension Reform

Date	Event
1993	Congress initiates constitutional reforms.
1995 Jan.1	F.H. Cardoso takes office.
1995 Mar.16	Pension reform proposal sent to Congress .
1995 April	Committee of Constitution and Justice approves pension reform proposal.
1996 Mar.6	Pension reform proposal instituting minimum years of contribution to the pension system was rejected in the House. The vote was 294 in favor 190 against and 8 abstentions (approval of Constitutional amendments require 308 in favor.)
1996 Mar. 21	Pension reform proposal approved in the House after intense use of patronage. (351 – 139 – 2).
1996 April 12	Supreme Court judge accepts injunction by the opposition suspending the legislative procedures on pension reform.
1996 Apr.29	Cabinet reshuffled. Extraordinary Ministry for Political Coordination created.
1996 May 8	Supreme Court overrules injunction suspending pension reform deliberations.
1998 Feb.11	Constitutional amendment approved in the House setting minimum age to retire at 60 for men and 55 for women. (345 – 152 - 3) Previously there was no minimum age only the requirement of having worked for 35 years for men and 30 for women.
1998 May 6	Constitutional amendment establishing minimum age for retiring was rejected in its second voting in the House. (307 – 148 – 8).
1998 May 23	Minimum retirement age of 53 for men and 48 for women (for those already in the social security system) approved in the House.
1998 Nov.5	House approves minimum retirement ages of 53 for men and 48 for women in its second passage through the House. (346 – 131 – 3) A ceiling for public sector pensions was allowed. Intense negotiations with deputies proceeded the vote.
1998 Dec.3	House rejects Constitutional amendment increasing contributions of active civil servants from 11% to 20%, and of retired civil servants who receive above R\$1,200 from 0% to 11%. (187 – 209 – 7; government need 200 votes to approve provisional decree.) Loss estimated at US\$2.2 billion per year. Executive threatened to cut unfaithful deputies' amendments and to remove their apes.
1998 Dec.12	House approves a bill to increase pension contributions from charities, churches, hospitals, schools and small businesses.
1999 Jan. 4	Ministerial reform is undertaken to help approve fiscal adjustment plan.
1999 Jan. 14	Real is allowed to float suffers large devaluation.
1999 Jan. 20	House approves law that increases contributions by active and retired civil servants. (335 – 147 – 4). Once again patronage was intensely negotiated.
1999 Oct. 1	The Supreme Court declares unconstitutional the previous law raising the contributions of active and retired civil servants.
1999 Oct 6.	House approves a law that changes how private pensions are calculated. (301 – 157; simple majority required)
2000 March	Supreme Court ruled that law altering private pension calculations is constitutional .
2001 Feb.	Proposal to amend the Constitution so as to overcome the Supreme Court ruling against increasing contributions of active and retired civil servants is stalled in Congress.

The Cardoso administration has viewed pension reform as urgent because since 1997 contributions of workers no longer covered the expenditures on pensions. The fiscal demand of funding pensions is in part reflected in the borrowing costs of the government.²¹ Outside observers (economists in academia, the World Bank and IMF and the press) have noted the lavish and unsustainable nature of Brazil's pension system.

The Brazilian pension system has broken just about every rule known to actuaries. It fixes no minimum retirement age, and allows a host of exceptions and special cases. It allows retired people (called, wonderfully inaccurately, "inactive workers") not only to draw more than one pension but also to go on getting a wage as well. Perhaps uniquely, Brazil not only allows some pensioners to retire on a higher income than they had when working, but also increases their pension every time their working colleagues get a wage rise. (The Economist, June 7, 1997).

Although the need for change is not controversial, the devil is in the details. Those who are already retired and those who are currently in the workforce have come to see the benefits promised by the current rules as a property right. The courts have tended to agree. Any solution necessarily implies redistribution and generates opposition, which is reflected in Congress. In addition, many Congressmen have a direct stake in pension reform; 120 members of the 518-seat house collect pensions.²²

The first defeat to the Executive's pension reform occurred in March 1996. The proposed bill addressed some of the more blatant distortions of the pension system. It required 35 years of contributions for men and 30 years for women, rather than simply years of service. In the private sector there was no age requirement for retirement but in the public sector the bill imposed a minimum retirement age of 55 for men and 50 for women, which would be increased to 60 and 55 in 2001. The bill would have capped pensions for the private sector at 10 times the minimum wage (approximately US\$1000). Civil servants would continue to receive the same as their pre-retirement wage but the current 20% bonus on retirement would be deleted. The bill also eliminated the accumulation of multiple pensions. Elected politicians who retired from another job were allowed to continue to receive a salary in addition to their pension.

Many issues in pension reform require a Constitutional amendment, which entails a three-fifths majority of the House (308 of the 513 deputies) and the bill must be approved in two separate votes in both the House and the Senate. After the first vote in the House the government came up fourteen votes short. President Cardoso responded quickly and sent a new bill to Congress in two weeks. This time Cardoso was very careful about his strategy. He attenuated some of the more controversial parts of the reform and made intense use of patronage, leading to passage in the House:

For the next two weeks, the president went to work. He held a meeting with 64 PPB congressmen, hosted a gala luncheon with one leading critic in the PMDB, and made telephone calls to state governors. Just what went on behind closed doors is anyone's guess, though the evidence is mounting that it was plenty. By March 21st, order was restored. The lower house backed the welfare reform.

So all's well? Not quite. The welfare reform has been weakened, to tinker with encrusted privileges not dismantle them... Still, "we made the only advance that was possible," said a relieved Mr Cardoso, thanking the legislators who supported him. And he paid for it. ...

Pork was on the menu in several states. The first time round, all seven congressmen from Rondonia, a small state in the Amazon, voted against the government's welfare reform. After a cordial chat at the Planalto, all seven changed their

²¹ For example, after having an important pension reform proposal defeated in Congress in December 1998 the Presidency's spokesman declared that "Congress did not give its support to the fight against the fiscal deficit that Brazil so dearly needs, which will lead to further spending cuts and ... postpone the reduction of national interest rates" (Gazeta Mercantil, Dec. 3, 1998).

²² David Fleischer cited in Associated Press 1999.

minds. Soon \$16m in federal cash will go to improve an important road in Rondonia, and one of the state's favourite sons will be heading the local arm of the federal telephone company. Pure coincidence, say officials in Brasilia. The drought-parched north-eastern state of Paraiba won money for an irrigation canal and reservoirs. A power plant was promised for Rio Grande do Sul. The government was no less open-handed with jobs and promotions. (The Economist, March 30, 1996)

The difficulties encountered in approving pension reform signaled to the government that the successful completion of more of its reforms would be a more demanding task than had been anticipated. In the following month Cardoso reshuffled the cabinet so as to strengthen the government's base of support in Congress. In addition Cardoso created a Special Ministry for Political Coordination whose purpose was to intermediate and facilitate the channeling of the demands of coalition members to the Executive, and the distribution of patronage in return for political support (Fleischer, 1998, pg. 91). Keeping track of each legislator's demands and voting performance is a formidable task so it is natural that means to do this more effectively would be sought. To better monitor legislative behavior over time the Ministry of Political Coordination created the System of Legislative Performance (SIAL) that centralized all requests by legislators to any governmental agency or Ministry, thus preventing any double granting of patronage or any omission (Pereira, 2000, pg. 107-108). In announcing the creation of the ministry president Cardoso justified that "... when Congress wants to say yes and can't manage to do so it is necessary that we get together to create conditions to make the dialogue flow better" (O Estado de São Paulo, April 30 1996).

The creation of the Special Ministry for Political Coordination is consistent with Result 2 derived from our model in the previous section: changes that reduce the cost of transacting between the Executive and the coalition, lead to greater gains from trade and policy outcomes more favorable to the Executive. The purpose of the new ministry was to facilitate transactions and thereby prevent future defeats in Congress. As difficulties in the reforms continued in the following years this ministry was reformulated several times and its holder often changed in attempts to strengthen the relationship of the Executive and the coalition.

The second defeat to pension reform came in May 1998 when a proposal instituting a minimum retirement age of 60 for men and 55 for women lost by one vote. The proposed legislation would have significantly reduced the government's pension bill. The bill was defeated despite the Executive's usual appeals and negotiation with its coalition in Congress, a sign of how divisive this issue was, particularly in an election year. After the upset the Executive announced that those deputies that had had their requests granted before the vote and didn't keep their part of the bargain risked having their individual amendments to the budget shelved and their appointments to positions in the federal government reexamined (Gazeta Mercantil, May 8 1998).

Two weeks later the President sent another bill to Congress. This time Cardoso changed the minimum age for retirement to 53 for men and 48 for women, valid only for those already in the social security system. In terms of our model this change can be seen as a compromise in the policy proposed by the government. If the horizontal axis in figure 3 is thought of as the minimum age for retirement established by the new law, the Executive preferred a higher value and first tried to pass the ages of 60 and 55. The defeat in the House showed that the coalition's preferences, which are for a much lower age, were more intense than expected. Even the negotiation of patronage did not guarantee the approval of the bill. Rather than simply offer more patronage to assure the next vote, the Executive opted to mitigate the age requirements. The new bill was approved and finally sealed in a second vote in November 1998. For this final vote the Executive took no risks:

President Cardoso dispensed with his trademark aloofness of his first term and openly pushed for his program, meeting with party leaders and sending telegrams summoning coalition members to vote. A bloc of 37 legislators representing agricultural businesses was promised by the Government that it would delay repayment of more than \$1

billion in farmers' debt in return for their votes, said Hugo Biehl, leader of the farmers' bloc in Congress. The Government also granted farm businesses \$280 million in concessions in exchange for their support. (The New York Times, November 6 1998.)

Having exhausted his options regarding age requirements, the President turned to addressing two different margins of pension reform: the size of the tax on income for pensions and the number of taxpayers. This was especially important to the President because it would provide some immediate financial relief at a time of imminent monetary crisis.²³ In December 1998 the House voted to increase pension contributions of civil servants from 11% to 20% of their wages, and also to start taxing the pensions of retired civil servants. This measure would provide an added US\$2.2 billion dollars to the government's coffers over the next year. This measure was bitterly opposed by civil servants who already saw their contributions as too high, and by the retired who saw their pensions as too low. The measure was defeated in the House:

As the vote on the pension approach, some coalition allies jostled for Cabinet posts. Others fielded calls from opponents of the bill. One hundred legislators just stayed away. ... Political analysts say the pension bill failed because the Government, overly confident, neglected the legwork to rally support. The administration also packed too much into one measure, focusing on active and retired government workers along with other groups because of time pressure. (The New York Times, December 12 1998.)

In the following month Congress called off its summer recess in an effort to vote a series of backlogged bills. At the same time Cardoso changed several ministerial appointments in order to adapt his Cabinet to changes in the newly elected Congress that would commence in two months. In part, due to the failed pension reform the pressure on the *Real* became overwhelming and Brazil set the *Real* afloat, resulting in a large devaluation.

Under this scenario Cardoso sent to the House a new measure to increase the pension contributions of active and retired civil servants. This time the Executive argued that pension reform was necessary to pull the country out of the economic crisis arising from the devaluation of the *Real*. In addition the heightened need for the measure made Cardoso more willing to exchange pork for support:

The Government invested everything on the crisis argument to wrench from its allies the approval of the project that creates the contribution of the inactive workers, however it also resorted to the traditional promises of posts and threats of firing the appointees of the unfaithful. Government leaders in the House warned the discontented in its coalition that no new appointments would be signed until the start of the new Congress in February. They guaranteed, however, that the pen would work immediately to punish the rebels. (Gazeta Mercantil, Jan. 21 1999.)

Congress approved the bill by a safe margin and instituted the new contributions immediately. But, a few months later (October 1999) the Supreme Court declared the law unconstitutional, forcing the government to revert to previous levels of contributions and return the additional revenue that it had obtained. Presently, Cardoso is on the pulpit pushing for Constitutional reform in order to enable contributions to increase. Meanwhile Congress has passed only minor changes to the pension system.

Individual Budget Amendments

Although there is no systematic data on the political use of government positions, there is evidence of the President acting strategically in approving budgetary amendments whose benefits accrue to certain Deputies. Pereira (2000) assembled and analyzed a unique data set to test the

²³ By this time there was a widespread belief that the Brazilian *Real* was substantially overvalued.

relationship between voting behavior of Deputies and the approval by the President of budgetary amendments. In Brazil the Executive first proposes the yearly budget, which subsequently passes through Congress where it can be amended by the legislators.²⁴ The amendments generally involve expenditures in the Congressmen's district, with the hope of yielding both votes and rents from constituents.²⁵ Following passage of the budget in Congress, the bill passes back to the President who has discretion of implementation. The process gives the President enormous leverage for rewards and punishment. The President frequently shelves some amendments on the grounds that tax receipts are insufficient to cover all expenditures. In many instances there is fiscal merit to his lack of execution.

Pereira (2000) finds strong evidence that the degree of legislative support of the President is closely linked to the number of amendments executed in favor of a particular legislator. In his model of the determinants of roll call behavior, the number of executed amendments provided the most explanatory power. In related tests on the determinants of reelections, Pereira (2000) found that having amendments executed increased the probability of reelection. Interestingly legislators who had their amendments approved in Congress, but not executed by the Executive tended to be punished by the voters (Pereira 2000: 179-183). These results provide evidence of exchanges between congressmen and the executive that are consistent with our model.

Section 5 – Conclusion

The media in Brazil commonly laments the exchange of pork for policy. Such complaints, ignore the counterfactual: in the absence of exchanging pork for policy the President would accomplish less of his policy agenda and policies would be either highly unstable or in gridlock. One could conceive of some other Congressional institution, such as strong committees, as stabilizing policy. But, Presidential power as the stabilizing factor seems a superior mechanism over committees because the President, more so than members of Congress, has the national interests in his utility function, e.g. economic growth, income equality and price stabilization. The concerns of Congressmen are more parochial; Congressmen are not in a position to internalize the gains from growth enhancing policies whereas they do internalize the benefits from pork. With the extant Congressional institutions in place, if Congress curtailed the power of the President we envision even more pork and less prudent developmental policies.

²⁴ For details of the budgetary process see Figueiredo and Limongi (2000b) and Pereira (2000) and sources cited therein.

²⁵ For example, a construction company will often reward a congressman who is able to approve an amendment that brings a public works project to his district.

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Appendix

Assume that $K \leq x_0 \leq P$, where K and P are the coalition's and the president's preferred s , and x_0 is either the status quo if $K \leq SQ \leq P$, or the status-quo equivalent within that interval for the coalition when $SQ < K$. Note that given the president's agenda power, when $P < SQ$ the final outcome will be P . The President's utility function is $-b(|P - x|) - C(R(x))$, where b is a parameter that determines the intensity of the preferences. The first term measures the utility from having the final policy outcome at x , and the second term measures the cost to provide patronage $R(x)$. The coalition's utility function is $-a(|K - x|) + V(R(x))$, where a is the coalition's preference intensity parameter and $V(\cdot)$ measures the value of the patronage to the coalition. The president's problem is:

$$\text{Max}_x -b(|P - x|) - C(R(x))$$

$$\text{subject to } -a(|K - x|) + V(R(x)) \geq -a(|K - x_0|)$$

The constraint forces the president to compensate the coalition with patronage up to the point where it will be just as well off in terms of utility as it was at the status quo. It is assumed that $V_R > 0$, $V_{RR} < 0$, $C_R > 0$ and $C_{RR} < 0$. Note that the president's choice variable is where he chooses to put the new policy x . The amount of patronage, $R(x)$, is set so as to satisfy the constraint at that point.

The first order condition is $b = C_R R_x$, where b is the marginal benefit to the president from moving the policy one unit closer to P , and $C_R R_x$ is the marginal cost. R_x measures how much extra patronage the president must give the coalition to move policy one unit closer to P , and C_R is the cost to the president of that marginal patronage.

Comparative statics:

Let p be a parameter in the president's patronage cost function that represents the level of transaction costs involved in providing patronage. That is, a change in the rules that makes it harder to give patronage would mean a higher value of p . Totally differentiate with respect to p the first order condition $b - C_R(R(x), p) R_x(x) = 0$ and solve for $\frac{\partial x}{\partial p}$ to get:

$$\frac{\partial x}{\partial p} = \frac{C_{Rp} R_x}{-(C_{RR} R_x R_x + R_{xx} C_R)} < 0, \text{ since } C_R > 0, C_{RR} < 0, C_{Rp} > 0, R_x > 0, R_{xx} = 0.$$

Let g be a parameter in the coalition's value of patronage function, $V(R(x), g)$. The higher the value of g the more the coalition will value a given amount of patronage. Because the constraint is always binding in the region of interest, an increase in g relaxes the constraint as the same amount of patronage now more than compensates for the marginal shift of policy towards P , thus allowing further shift in that direction. Therefore

$$\frac{\partial x}{\partial g} > 0.$$

The president's problem with n parties in the coalition.

The president's problem when he needs the votes of all n parties in the coalition is:

$$\text{Max}_x -b(|P - x|) - C\left(\sum_{i=1}^n R_i(x)\right)$$

$$\text{subject to } -a_i(|K_i - x|) + V_i(R_i(x)) \geq -a_i(|K_i - x_0|)$$

for all $i = 1, 2 \dots n$.

This is similar to the single party case except that each party must be compensated with patronage to as to satisfy the constraints.