Public Debt and the Birth of the Democratic State

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When I first began work on this book I was interested in exploring whether the eighteenth century experiences of France and Great Britain could provide general lessons about the link between representative democracy and policy credibility. Like many other scholars, I had been influenced by an article published by Douglass North and Barry Weingast in 1989 which argued that the constitutional changes associated with the Glorious Revolution of 1688 had allowed the British state to credibly commit to repaying its debt and thus to gain unprecedented access to finance. Their argument also seemed well supported by the experience of ancien régime France, where the monarchy had near absolute authority, yet it struggled to find deficit finance and regularly resorted to default. While fascinated by the comparison, I was struck by several unanswered questions; most importantly why would granting greater authority to Parliament in the UK result in commitment to repay debt when government creditors at this time had only limited representation in the House of Commons? I was also surprised to discover that many historians of eighteenth century Britain considered that the emergence of cohesive political parties after 1688 was as significant a development as the constitutional changes following the Glorious Revolution. In order to confront these issues, in this book I have sought to develop new theoretical propositions about public debt and democratic politics and then evaluate them using historical evidence from France and Great Britain during the eighteenth century. In doing so I have been helped by a great number of people, all of whom have proved open to a research project which is necessarily interdisciplinary. A number of people read and commented on several preliminary papers which laid the basis for the final book including Lawrence Broz, Keith Dowding, Macartan Humphreys, Phil Keefer, Gilat Levy, Richard Mash, Ken Scheve, Ken Shepsle, Barry Weingast, and Stewart Wood. I was also fortunate to
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Chapter 1

Introduction
1. Credibility and Public Debt

Like many areas of economic policy, public borrowing is subject to a credibility problem. Borrowing on capital markets is advantageous, because it gives governments a means of deferring part of the cost of financing public goods. A state which has access to credit can expand public investment without a sharp and immediate increase in taxation. The problem is that once a government has borrowed, it may face incentives to defer repayment or even to default on its obligations, in order to reduce the burden of taxation on those who contribute to repay debts. Default was a common occurrence that hindered the development of public borrowing in early modern Europe. Today, default may no longer be a worry for those who are considering investing in bonds issued by OECD governments, but it is a major issue for governments in developing and transition economies which seek to offer assurances about debt repayment. If prospective lenders anticipate that a government may default, they will only invest if they are given a high rate of return which compensates for this risk. In extreme cases, they will refrain from lending at all.

This book investigates the link between public debt and representative democracy. In it I develop three theoretical arguments about the effect of constitutional checks and balances, political parties, and bureaucratic delegation on government credibility, and I then confront these propositions with historical evidence from England and France during the eighteenth century. In a concluding chapter I consider broader implications of my findings, focusing on links between democracy and economic performance and on the study of institutions. The theoretical sections of the book use basic game-theoretic models to examine how different institutional features of representative government influence the possibility for states to commit to repaying their debts. While there are now a number of studies that investigate how
representative institutions may allow governments to solve commitment problems, some authors have argued that this literature often fails to explicitly consider partisan motivations on the part of political actors. Alternatively, those models of commitment problems in debt and taxation which do take partisan motivations into account often pay only limited attention to institutional features of decision making. The theoretical and empirical analysis here attempts to fill this gap by drawing simultaneously on political economy theories that emphasize partisan pressures on economic policy, as well as analyses which show how the rules of democratic decision making may influence economic policy choices.

I pay particular attention to three features of representative political institutions that may improve a government’s ability to credibly commit. The first emphasizes constitutional checks and balances (multiple veto points in current terminology). According one view, which extends back to theorists like Madison and Montesquieu, representative institutions improve commitment when they involve features such as a division of power between legislature and executive or between multiple houses of a legislature. My first main argument suggests that while constitutional checks and balances can improve possibilities for credible commitment, they are neither a necessary nor a sufficient condition for this to occur. They are not a necessary condition, because interests opposed to default may gain influence even in the absence of checks and balances. They are not a sufficient condition, because those opposed to default may fail to gain influence even in a country where the constitution provides for checks and

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2 A good example here is the model in Persson and Tabellini (1994).
balances. The implications of this argument for credible commitment have not been previously examined.

A second potential credibility-enhancing feature of representative institutions involves the way political parties form in plural societies. When governments borrow, a division is likely to emerge between those who own public debt and those who pay the taxes to service public debt. This raises the question of how society could commit to repaying debt if creditors are a minority of the population. My second main argument suggests that in societies where there are multiple dimensions of political conflict, even if government creditors are a small minority, other groups can face incentives to support timely repayment of debts in order to gain the support of government creditors on issues such as religion, foreign policy, or constitutional questions. As a result, careful attention should be paid to whether political conflict is in fact multi-dimensional and to whether government creditors are able to form durable coalitions with other social groups. This second argument implies that democratic compromise may provide commitment even in the absence of constitutional checks and balances.³

A third feature of representative government that may enhance credibility involves the tendency for rulers and politicians to delegate authority to individuals who are committed to pursuing a particular policy, whether it be repaying debt, maintaining low inflation, or regulating industries in a socially desirable manner. In the area of public borrowing it was common for rulers in early modern Europe to delegate authority with the express intent of improving their credibility. So, for example, a ruler might give a group of officials the right to manage public revenues so as to ensure full debt repayment. My third main argument suggests that bureaucratic delegation can reduce default risk, but it will be ineffectual in doing so unless creditor interests have

³ The effect of multi-issue conflict on economic policy choices has also been considered recently by Roemer (2001, 1999, 1998) and by Besley and Coate (2001).
power within a representative assembly, either as an outright majority or as part of a
majority coalition. The reason is that when government creditors lack such political
influence, rulers will find it easy to unilaterally alter agreements with individuals to
whom they have delegated.

In exploring the politics of debt repayment, this book also asks when the
institutions or practices which reduce the risk of default are consistent with basic
democratic principles. The key question here is when does commitment occur as a
result of democratic politics pushing policies towards "moderate" outcomes, and
alternatively, when is the problem solved only at the expense of democracy, by giving
government creditors a privileged position in society. As a result, this study should be
relevant not only to theoretical debates about credibility, but also to debates about the
"structural power of capital" and economic policy making in an era of global finance.

2. Historical Setting and Scope of the Study

My empirical focus on Britain and France is motivated by the fact that it has become
popular to contrast the financial experiences of these two countries during the
eighteenth century. Great Britain has been portrayed as the first state to establish a
modern system of public finance while France has been viewed more frequently as an
example of failed reform. For some authors, understanding the development of state
finance in the two countries has been the end objective of study, while for others, state
finance has proved of interest because of the possible link with other developments

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including economic growth and international rivalries.\textsuperscript{5} In this book I pursue the former approach. As a result, I do not directly consider whether state finances must be sound before private financial markets can develop.\textsuperscript{6} Nor do I seek to ask whether the Glorious Revolution in Great Britain coincided with increased protection of property rights in the economy more generally.\textsuperscript{7} My objective is instead to consider Great Britain and France as fascinating cases which can be used to develop more general inferences about the link between representative government and credible commitment. In so doing I hope to add to other recent work that considers the link between political institutions and state finance in early modern Europe.\textsuperscript{8} I also hope to show that it is possible to use game theoretic models of politics combined with historical analysis in the style of “comparative historical institutionalism”.\textsuperscript{9} Finally, while I draw extensively on research in the fields of economic history and political history, as well as primary sources in selected areas, it is worth emphasizing that this book is primarily a work of political science. My goal for the empirical chapters is to draw on historical work on England and France in order to gain new perspectives on enduring questions posed by political scientists and economists. Likewise, I hope that historians may find this book of interest to the extent that it draws links between partisan politics, political institutions, and state finance in a way which existing work may not have emphasized.

The British historical background to this study involves the dramatic set of changes that took place in English government finance after the Glorious Revolution of 1688. When faced with the need to borrow, English monarchs before 1688 had resorted

\textsuperscript{5} See Schultz and Weingast (1996).
\textsuperscript{6} This is a claim made by North and Weingast (1989) but contested by Hoffmann, Postel-Vinay, and Rosenthal (2000). See also Rousseau and Sylla (2001) for a more general discussion on the historical link between financial development and growth.
\textsuperscript{7} Clark (1997) has argued that security of property rights was a feature of the British economy well before 1688.
\textsuperscript{9} See Thelen (1999) on this point.
largely to *ad hoc* methods, default on these loans had always been a possibility, and as a result the Crown had often been unable to gain access to credit at anything less than exorbitant rates of interest. After the Glorious Revolution this picture changed dramatically. Methods for borrowing were regularized, Parliament gained substantial prerogatives in the area of public finance, the Bank of England was created, and the Crown found itself able to borrow larger amounts at lower rates of interest than ever before. Many of these changes were directly inspired by earlier institutional reforms in the Netherlands, a subject I explore in Chapter 3. It was the simultaneous nature of these developments in Great Britain that prompted North and Weingast (1989) in their seminal article to suggest there was a causal link between the establishment of a limited monarchy in the United Kingdom and improved access to credit.

Chapter 4 presents evidence to show that interest rates on British government debt did indeed trend downward after 1688. However, what North and Weingast’s argument seems less able to explain is why it took over thirty years after 1688 before the British government could borrow as cheaply as could the government of Holland, which was universally recognized at the time for its creditworthiness. Moreover, despite the long-term trend toward lower costs of borrowing, there was very significant volatility in interest rates during the reigns of King William III (1689-1702) and of Queen Anne (1702-14), as well as periodic runs on Bank of England shares. At times during these years the British Crown actually found itself borrowing at rates as high as those which had prevailed before 1688, and as high as those paid by the French monarchy. These observations raise questions about how debt politics evolved over time in the UK. Was this post-1688 volatility related to political events, such as changes in the partisan control of government? What were the factors that allowed the British government after 1715 to borrow as cheaply as the Dutch government? While economic historians have
extensively documented the development of British government borrowing after 1688, the possibility that post-1688 trends in interest rates were correlated with political trends has not been thoroughly investigated.

I argue that the improvement in the British Crown's access to finance cannot be understood unless one recognizes that apart from the establishment of a limited monarchy, the last decade of the 17th century also witnessed another major change: the development of cohesive political parties.\textsuperscript{10} Politics in Great Britain between 1688 and 1742 was characterized by conflict between two parties, the Whigs and the Tories, that took differing stances on a range of issues including religion, the succession to the throne, foreign policy, and state finance. The Whigs in particular were a party founded upon a compromise between several different groups with diverse interests including government creditors, Protestant Dissenters seeking religious freedom, and landed aristocrats who sought among other objectives to increase Parliament's constitutional prerogatives. Because those landowners who participated in the Whig coalition differed with government creditors over questions of taxation and finance, it was crucial for the success of the coalition that both groups nonetheless had similar preferences on a number of other issues in British politics. From the 1720s, as issues like religion became less salient in British politics, the Whig coalition under Robert Walpole was increasingly held together by patronage, though patronage alone never sufficed for Walpole to maintain a majority.

In Chapters 4 and 5 I show that trends in interest rates on UK government debt after 1688 can be better understood when one considers that government creditors were

active members of the Whig party whereas the Tory party was much more closely aligned with those landed interests who chafed at the tax payments necessary to repay public debt on schedule. Chapter 4 presents several basic econometric tests to show that interest rates on UK government debt tended to be lower when the Whig party had firmer control of Parliament. Given that the shareholders of the Bank of England were the most prominent of the government's new creditors during this period, it is not surprising that the split between Whigs and Tories over state finance was also reflected in Bank of England share prices. These suffered a precipitous crash after a Tory electoral victory in 1710.\footnote{11}

While the British government after 1688 gained access to larger quantities of credit at lower rates of interest, no such change took place in France, and the French Crown would continue for the duration of the eighteenth century to face greater difficulty than its British counterpart in borrowing. This has prompted a number of authors to suggest that the French Crown's difficulties were attributable to the failure to adopt British-style institutions. Painstaking work by economic historians has provided evidence consistent with this argument. Throughout the eighteenth century the French monarchy was forced to borrow at significantly higher interest rates than did the British government.\footnote{12}

While discussions of state finance in eighteenth century France have often focused on “missed opportunities” for institutional reform, I argue that even if France

\footnote{11} This conclusion that default risk on government debt was lower under the Whigs represents a difference between my own interpretation of events and the argument about partisan politics presented by Carruthers (1996, 1990). Carruthers emphasizes the link between religion, party, and state finance, but he does not focus on credibility of debt repayment, nor does his work give as much emphasis to the role of political parties as heterogeneous coalitions.

\footnote{12} See in particular the study by Velde and Weir (1992), which is described in greater detail in Chapter 4. Hoffman, Postel-Vinay, and Rosenthal (2000) demonstrate that, in spite of the French Crown's lack of credibility as a debtor, private financial markets developed quite rapidly in France in the latter half of the eighteenth century.
had adopted British-style institutions this would have been unlikely to improve the monarchy’s credibility as a borrower. To support this claim I focus on three specific episodes of abortive reform. The first occurred following the death of Louis XIV in 1715. In the midst of a major financial crisis, several senior figures in the French court proposed reinvigorating France’s national representative institution, the Estates-General, which had not met since 1614. Two authors have recently argued that the failure of the Regent of France to follow England’s example at this time represented a missed opportunity for the French monarch to credibly commit. In doing so, however, Sargent and Velde (1995) do not consider which partisan forces would have been represented within the Estates. Chapter 6 presents evidence from contemporary eighteenth century observers that the motivation for calling the Estates-General would in fact have been to trigger a default on debt, rather than to avoid one. Evidence on the political divisions in French society during this period supports the conjecture that within the Estates General, government creditors would have been poorly represented. As a result, the establishment of representative political institutions may well have been insufficient to solve the French Crown’s borrowing problems.

A second episode of failed institutional reform in France involved the national bank created by the Scottish financier John Law in 1716. The Regent who governed France agreed to Law’s plan for a public bank that would issue a paper currency and which would aid the monarchy in retiring its stock of debt. The plan was inspired in part by the success of the Bank of England which had been founded in 1694. Law’s Bank failed soon after its creation, however, due in large part to an excess issue of banknotes. His project was one of a series of attempts by French rulers during the eighteenth century to borrow indirectly from the public via corporate groups or public banks in order to obtain better access to credit. The failure of these institutional
innovations to establish credibility shows that as long as they retain the right to unilaterally alter agreements with officials to whom they have delegated, then absolute monarchs and other unconstrained rulers will find it impossible to reduce default risk through delegation.

After the period of financial crises following the death of Louis XIV and the failure of Law's bank, there was a gradual transformation of French public borrowing during the eighteenth century. The monarchy relied increasingly on the sale of bonds purchased by a broad cross-section of the French population. As a result, it would be inaccurate to say that there was no evolution of French financial institutions during this period.13 No reduction in default risk accompanied these changes, however, as studies have shown that the French government continued to pay a premium on its loans, and in fact there were two further defaults in 1759 and in 1770.

With this background of repeated crises of public finance, the deputies of the new French Constituent Assembly in 1789 (now the chief law-making body in France) faced several options including proposals to default, to raise new taxes, and/or to create a national central bank. In the end, a majority opposed the proposal to create a national bank similar to the Bank of England, but the Assembly did vote to create a new currency, the assignat, backed by funds generated from the confiscation of church lands. Subsequently, excess issues of assignats led to massive price inflation in France. Some authors have seen this episode as another missed opportunity for the French government to adopt the sort of financial institutions that would have improved its access to finance (Sargent and Velde, 1995). Chapter 6 presents evidence which supports a different interpretation. The difficulties of the new revolutionary government were due not only to a failure to adopt certain institutional innovations.

More fundamentally, they reflected an underlying distribution of political forces in France which was unfavorable to government creditors. Unlike the Glorious Revolution of 1688 in England, the transfer of significant prerogatives to a legislative assembly in France in 1789 was not accompanied by the development of a cohesive majority coalition within which government creditors played a significant role.

3. Theories of Representative Government and Credible Commitment

Theoretical arguments about representative government and commitment focus on the idea that there is less risk of a sudden reversal of policy when decisions are made by a legislature, rather than by an unconstrained executive such as an absolute monarch or a dictator. While this claim is an appealing one, existing work has not fully addressed the question why those who control representative institutions should necessarily oppose actions like defaulting on public debts. One possibility may be that devolving power to a legislative assembly will improve credibility if those who represent government creditors constitute a majority within the legislature. On the other hand, one could just as easily imagine a scenario where creditors would be in the minority, and thus a legislative majority would have an incentive to default on debt, because this would allow a reduction in future taxes. This would seem all the more likely given that in many historical contexts ownership of government debt has been concentrated within a narrow segment of the population.\footnote{In their discussion of England after 1688, North and Weingast (1989) do not directly confront this issue, apart from suggesting that the “commercially minded Whig ruling coalition” would have found it anathema to default.} Theoretical work in the field of political economy has not considered this issue in detail.\footnote{One interesting exception here is an article by Dixit and Londregan (2000) that suggests that those who expect to hold power in the future will be more likely to purchase government debt. Their article, however, does not specifically consider decision making within a legislative assembly.}
In order to consider the link between representative government and public debt, then, one needs to allow for the possibility that legislators may represent government creditors, but they may also represent those who pay the taxes to service debt. When a legislature is given decision making power over issues of debt and taxation, this should only reduce default risk if the legislative majority takes the interest of government creditors into account when making policy. In some legislatures, government creditors may actually form a majority, in which case the analysis is straightforward. This seems to be a fair description of the Estates of Holland during the sixteenth century, an early example of borrowing by a legislature which is considered in Chapter 3. More frequently, though, government creditors will be in the minority. Within the British Parliament during the eighteenth century, in fact, the overwhelming majority of legislators were landholders, as were their constituents. Given that landowners paid a significant share of the taxes that went to service government debt during this period, this raises the question why granting more power to Parliament after 1688 should have necessarily reduced the risk of a default. More generally, how could a legislature commit to repaying debts if government creditors represent only a small percentage of its members?
**Constitutional Checks and Balances**

One way to refine the argument about political representation and public debt is to suggest that what actually matters for credibility is the number of constitutionally determined veto points in a political system. The greater the number of veto points, the greater the likelihood that those favorable to repaying debt will be able to block attempts to default. This follows the classic defense given by James Madison in *The Federalist* #51 for checks and balances in government; oppression of a minority by the majority will be less likely to occur when the legislature is divided into different branches, and when there is a separate executive and legislature so that they can balance against each other. Madison himself followed earlier thinkers, and notably Montesquieu, who also saw the separation of powers as a means of protecting minority rights. Following on this idea, we might suggest that establishing representative government will increase credibility to the extent that it involves an increase in the number of veto points in a political system. North and Weingast suggest something close to this in the conclusion to their 1989 article, highlighting the importance of the “balance between Parliament and the monarchy” in Great Britain after 1688 and of the presence of multiple veto points. So, for example, if an absolute monarchy or a...

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16 A "veto point" can be defined as a political institution, the holder of which has the power to block a proposed change in policy. Throughout this study when I refer to “veto points” or “veto players” I am referring to what Tsebelis (2002) calls “institutional” veto players, those specified by a country’s constitution. Tsebelis distinguishes “institutional” veto players who have veto power because a country’s constitution grants them this authority, and “partisan” veto players, which are individual member parties or factions in a ruling coalition. The latter may have veto power because they can threaten to exit a coalition if a bill they find unfavorable is passed. As a result, Tsebelis’s “partisan” veto players are similar to the individual groups I consider that combine to form political parties. The key difference is that in Chapter 2 I provide an explicit model of the process of party formation rather than assuming that each group within a party is a veto player. For a comprehensive discussion of veto points and policy making see Tsebelis (2002).

17 *L’Esprit des Lois*, Book XI.

18 Referring to the constitutional changes introduced after 1688, “Increasing the number of veto players implied that a larger set of constituencies could protect themselves against political...
dictatorship (where there is only one constitutional veto point) is replaced with a unica-
meral legislature, then credibility may not be enhanced. If on the other hand, an absolute monarchy is transformed into a limited monarchy where both king and parliament have the right to veto policy proposals, then opportunities for commitment may be enhanced by the fact that the parliament places a check on the authority of the monarch, while the monarch simultaneously places a check on the authority of parliament.

A key question about constitutional checks and balances is whether the mere existence of institutions such as bicameralism, or a separation of power between legislature and executive, is sufficient to ensure that a given political group - like government creditors - controls a veto point. Alternatively, one might argue that checks and balances will only ensure commitment if there is some mechanism which makes it virtually certain that a given group will control a specific institution, such as the upper chamber of a legislature. Modern critics of the separation of powers system have long suggested that in practice it is intended to stack the deck of the political game so that certain groups are ensured veto power. Charles Beard (1913) made a famous critique of the US Constitution as an attempt by owners of property to reduce the risk that republican government might be controlled by debtors and small farmers. Subsequent work has pointed out weaknesses in Beard's account, but the underlying question remains. Among the founding fathers in the US, Alexander Hamilton was the most explicit supporter of giving owners of property a privileged position in government, as illustrated by the following statement made to the Federal Convention of 1787.

assault, thus markedly reducing the circumstances under which opportunistic behavior by the government could take place”, 1989, p.829.
All communities divide themselves into the few and the many. The first are the rich and well born, the other the mass of the people. The voice of the people has been said to be the voice of God: and however generally this maxim has been quoted and believed, it is not true in fact. The people are turbulent and changing; they seldom judge or determine right. Give therefore to the first class a distinct, permanent share in government. They will check the unsteadiness of the second, and as they cannot receive any advantage by a change, they therefore will ever maintain good government.\(^{19}\)

There have been critiques of Montesquieu's support for the separation of powers that parallel Beard's critique of the US Constitution. Althusser (1959) suggested that Montesquieu's advocacy of the separation of powers was motivated by a desire to ensure that the nobility would retain a privileged position in French society.\(^{20}\)

Montesquieu in *The Spirit of the Laws* does in fact make quite explicit his preference for a bicameral legislature with the upper chamber reserved for the nobility.\(^{21}\) It is interesting to note in this regard that Montesquieu's idea of the separation of powers as a check on majority rule drew on earlier visions going back to Aristotle of a "mixed constitution" that would provide guaranteed representation for each segment of society.\(^{22}\) In contemporary terms, one reason why federal systems may be particularly effective at protecting minority rights is precisely because they give guaranteed


\(^{20}\) Althusser himself relies heavily on earlier work by Eisenmann (1933).

\(^{21}\) As an illustration of the importance of having different legislative chambers controlled by different social groups, Montesquieu cites the example of the Venetian Republic which had constitutional checks and balances that meant little in practice, because all veto points were controlled by the same social group. *L'Esprit des Lois*, Book XI, Chapter 6.

\(^{22}\) On this point see the discussion in Raynaud (1993), and Manin's consideration of how modern forms of representative government have retained certain "aristocratic" elements.
representation to certain groups (based on geographic location). One might make the same observation of the power-sharing arrangements that are sometimes created after civil wars, these too are characterized by guaranteed representation for each party.

Existing formal treatments of the effect of veto points have not asked whether multiple veto points alone are sufficient to ensure credible commitment, or alternatively whether credibility can only be achieved if, in addition to creating multiple veto points, there is some mechanism which ensures that government creditors will control one of these veto points in the future. In practical terms, if one assumes that control of one veto point by government creditors is sufficient to avoid a default, then those deciding whether to invest in government debt will need to develop some expectation about the likelihood that those who oppose default will have veto power. If it is thought that there is a very high probability that owners of public debt will control at least one veto point, then people will be more willing to lend to the government. In other cases, however, outcomes may be sufficiently uncertain that individuals would be dissuaded from purchasing government debt. The legislative bargaining model developed in Chapter 2 of this book considers the effect of multiple veto points under two different scenarios: when the future identity of veto players is known and when future control of veto points is random. In the case where government creditors are certain to have control of a veto point, not surprisingly, there is less risk of opportunist actions like default on debt. When future control of veto points is random, however, the effect is much less significant. In other words, constitutional checks and balances may have

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Tsebelis (2002) fully acknowledges that policies may not be stable even when there are multiple veto points, if veto points are controlled by players with similar preferences, but to my knowledge this implication has not been considered in discussions of multiple veto points and credible commitment. McCarty (2000) has developed general propositions about the effect of veto power on outcomes, but for a bargaining context where preferences are homogeneous. Londregan (2001) has considered the effect of veto points when the future bargaining context is uncertain, but not when future control of veto points is subject to uncertainty.
little effect on credibility unless there is some mechanism which ensures that
government creditors are the ones to enjoy veto power.

Beyond uncertainty about future control, a further problem with multiple veto
points as a commitment device is that even if government creditors have veto power
over policy, this may be insufficient to ensure that public debt is repaid. The reason
here is that default frequently occurs in situations where there is no agreement on the
alternative (raising taxes and/or cutting spending). A government which aims to repay
its debt needs to maintain a tax rate that generates sufficient revenue to meet its debt
servicing obligations. In an economy with a constant rate of growth and no shocks to
economic activity, debt servicing could be assured with a stable tax rate. Under these
conditions, as long as government creditors controlled one veto point, they could
successfully oppose any attempts to change this rate. In practice, governments may
need to periodically adjust tax rates and levels of spending to respond to revenue
shortfalls. As a consequence, when revenues are unstable and unpredictable, holding
veto power may be insufficient to guarantee full repayment of debt.

The above discussion leads to my first principal argument. Constitutional
measures establishing multiple veto points may reduce default risk, but they are neither a
necessary nor a sufficient condition for this outcome. They are not always necessary,
because in some representative assemblies creditor interests may have an outright
majority. At the same time checks and balances may be insufficient to ensure debt
repayment if there is substantial uncertainty whether government creditors will hold
veto power in the future, or if revenues are unstable and unpredictable.
<B>Party government in a plural society</B>

Rather than establishing commitment through constitutional checks and balances, an alternative possibility I consider is that credible commitment in a democracy results from the compromises necessary to form a durable majority in a legislature that represents a diverse society. Even if owners of government debt are a small minority within the legislature, if they participate in a broader majority coalition, bargaining within this coalition may result in “moderate” policies with regard to debt and taxation. If wealth holders anticipate this outcome, they will be more likely to invest in government bonds.

In a frequently cited work, Schattschneider (1942) argued that in societies where there is conflict over multiple issues and where the dividing lines in each conflict do not coincide, then any legislative majority which votes cohesively on multiple issues will need to be held together by compromises and concessions that lead to moderate policies. For Schattschneider, political parties were the primary means in a representative democracy of cementing such compromises. He also suggests that the moderating effect of creating a legislative majority is a clear implication of James Madison’s claim in Federalist #10 that the diversity of interests in a large republic makes it less likely that any one individual interest will dominate. In Schattschneider’s opinion, Madison failed to foresee that if bargaining to construct a legislative majority necessarily leads to compromise, this might actually obviate the need for constitutional checks and balances in order to guard against tyranny of the majority.24 Schattschneider’s argument is also related to the well-known comparative politics literature on “cross-cutting cleavages” which suggests that when social divisions tend to

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24 (1942, p.9). See also Hofstadter (1969) on this point. McLean (2001) and Kernell (2001) provide recent discussions of the contradictions between Madison’s writings in Federalist #10 and Federalist #51.
cross-cut each other, policies are likely to be more moderate. As an example, this would be the case in a society divided between “rich” and “poor” as well as Catholic and Protestant, but where not all “rich” are Protestant and not all “poor” are Catholic.\(^\text{25}\) It is also related to work in the field of American politics and in the field of international relations.\(^\text{26}\)

This vision of political party formation is strikingly close to that presented in a number of recent game-theoretic models of parties. Voting in legislatures presents a collective dilemma in which there are strong incentives for a majority party to form in order to improve on the expected outcome of voting in the absence of parties. One can illustrate this possibility using the example of a three member legislature facing three proposed bills, each of which would provide a positive payoff to two members while providing a negative payoff to a third member (with the third member differing in each case). If a bill is not approved, players receive zero utility. In this sort of a game, Schwartz (1989) and Aldrich (1995) have emphasized that two players can improve their payoff if they could commit to a party platform of voting in favor of the first bill, but opposing the second and third bills. One can extend this model of political party formation and legislative bargaining to a more general setting, using a legislative bargaining model first developed by Baron and Ferejohn (1989).\(^\text{27}\) In Chapter 2, I


\(^{26}\) See Aldrich (1995), Stokes (1999), and Key (1964) for accounts from the field of American politics on parties as collections of heterogeneous groups. Work in the field of international relations has also emphasized the implications for credibility of the multi-issue nature of political debate. See Frieden (1993), Martin (1994), and Stasavage and Guillaume (2002).

\(^{27}\) In doing so I draw on work by Jackson and Moselle (2002) and Calvert and Fox (2000). Alternative models of parties as solutions to collective dilemmas faced by legislators have been developed by Cox and McCubbins (1993) and Snyder and Ting (2000). Roemer (2001, 1999, 1998) constructs a model where the presence of an ideological dimension influences choice of policies on a second, economic dimension. His model differs from that developed here in that, rather than focusing on a political party as a means for actors with different policy preferences in a legislature to commit to a common platform, he models a game where, in an electoral context, party members differ over the extent to which they prefer to win an election even if this implies a compromise on policy.
present a game-theoretic model which demonstrates how the politics of public debt can be affected by cross-issue deals and by formation of political parties. In doing so I make sure to take account of the critique made by Krehbiel (1993), who argued that observed party cohesion may reflect similarities in preferences rather than an independent effect of parties on outcomes.

As with the argument about constitutional checks and balances, my argument about party formation and credibility is based on a number of assumptions which may not always hold. First of all, if government creditors are in the minority, then party formation can only improve credibility if there are multiple dimensions of social conflict. This is an observable implication of the argument that I consider at length in the following chapters. In societies where all conflicts can be distilled into a single dimension and where preferences across this dimension are highly polarized, a legislative majority is unlikely to be moderate.28 A second requirement is that there must be means to ensure party cohesion; individual legislators must be able to commit to voting the party platform, even in cases where their short-term interest would be better served by voting otherwise. So, in the case relevant to this book, legislators whose constituents do not own debt must be prepared to support debt repayment in order to gain the support of creditors on other issues. Real-world political parties have evolved a number of mechanisms to ensure cohesion, such as the possibility of sanctioning members who deviate from the party line. I show that party members can benefit from the repeated character of legislative bargaining in order to enforce cooperation.29 The empirical chapters of this book will investigate the actual

28 This possibility was explicitly recognized by Schattschneider (1942). If there is only one dimension of conflict, but preferences are not highly polarized, then this may also clearly lead to a moderate outcome.
29 See Calvert and Fox (2000). More generally, my arguments here follow the approach proposed by Calvert (1995a, 1995b) to model a social institution (such as a political party) as an equilibrium outcome of an underlying repeated game. My model is also closely related to Bawn (1999),
mechanisms developed by political parties in eighteenth century England and France to enforce internal cohesion.

The argument that party formation in a plural society can improve credibility is further complicated by the possibility of electoral volatility. Take the case where a legislature contains a majority party of which government creditors are a part. To the extent they think this party may not retain its majority in future elections, wealth holders will only invest in government debt if they are paid a higher rate of return which includes a default premium. As a result, we should expect trends in default premia on debt to be correlated with anticipations about the partisan composition of future legislatures. This is a key observable implication of the theory that I will consider in subsequent chapters.

The above discussion leads to my second main argument - In societies with multiple dimensions of conflict, the process of party formation will reduce default risk provided that government creditors are members of the majority coalition. Default premia will also be lower to the extent this coalition is expected to retain power. While this argument implies that party government may lead to credible commitment even in the absence of constitutional checks and balances, these two alternative arguments are not necessarily exclusive. In some cases, credibility may depend upon both the process of party formation, and on the presence of multiple constitutional veto points. This would be the case if government creditors were a small faction of a larger party which controlled one veto point in a political system with multiple veto points.

This argument about party formation may seem surprising, given the implications from social choice theory that policy instability is likely to occur when there are

where players subscribe to an ideology that is defined as the equilibrium strategy profile of a repeated game.
multiple issue dimensions (in the absence of a structure-induced equilibrium of the sort identified by Shepsle, 1979). While social choice theory in the context of legislative bargaining assumes that all alternatives are considered simultaneously, in Chapter 2 I adopt the assumption that legislative proposals are considered sequentially, and that if a proposal receives a requisite majority it is implemented for some amount of time. This plausible assumption yields equilibrium outcomes even for cases of multidimensional bargaining where social choice theory would predict that there would be no stable outcome. While sequential choice theories of bargaining do not require institutions such as a committee structure to generate stability, when there are multiple dimensions of policy, creating institutions like a political party may nonetheless allow legislators to realize significant gains even under these assumptions. It is also worth noting here that even under social choice assumptions, it has been recognized that there are strong incentives for individuals to form coalitions, and these coalitions can imply tradeoffs across issue dimensions, leading to moderate policies.

One final implication of party government worth considering is that it is a fundamentally democratic means of achieving credibility. Commitment in this case is supported by a majority, rather than depending upon according some special status or privileges to owners of government bonds. To the extent that party formation is accompanied by creation of an ideology, then this ideology will also need to focus on ideas which resonate with a majority of the population, and thus it will need to emphasize some project which goes beyond the simple need to please government bond-holders.

30 For a thoughtful discussion of the reasons for preferring either the sequential choice or the social choice assumptions see Baron (1994).
31 See Laver and Schofield (1990) and Schofield (1993).
32 This argument would still be consistent with a rational choice approach if one referred to ideology as a rule for sharing benefits between different members of a coalition, as modeled by Bawn (1999).
A third feature of representative democracy which may influence commitment involves granting authority to unelected officials or intermediaries. There are reasons to believe that delegation of management of government debt to an independent agency, like a central bank, can increase credibility of debt repayment. This claim parallels more general arguments about the potential for bureaucratic delegation to change economic policy outcomes. The literature on public finance in eighteenth century Britain has suggested that the Bank of England (created in 1694) played a critical role in the modernization of British state finance. While the Bank of England did not yet set monetary policy like a modern central bank, it did arguably fulfill several functions which made it more costly for the British government to default on its debts. For one, because government revenues were increasingly channeled through the Bank, some have argued that any decision to default would have quickly led to a halt in payments from the Bank to the government. In addition, as the largest lender to government during this period, in the event of a suspension of payments on debt, the Bank might have organized a creditor cartel that would refuse to make any future loans to government.

In strong contrast with Great Britain, France during the eighteenth century did not succeed in establishing a national bank. Some have argued that the French government's difficulties in obtaining access to cheap credit during this period were directly linked to this absence of institutional reform. Others have argued that despite

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33 While bureaucratic delegation is relevant for a large number of areas of economic policy, the best known example involves delegating monetary policy to an independent central bank. See Cukierman (1992) for an extensive survey.
35 This is suggested by North and Weingast, following an earlier argument by Macaulay (1861).
36 See Weingast (1997a).
its failure to create a national bank, the French monarchy before 1789 was able to make at least a partial commitment to repaying its debts by borrowing indirectly through corporate bodies and local assemblies. As discussed in Chapters 4 and 6, this indirect borrowing can also be seen as a form of bureaucratic delegation to the extent that it removed debt servicing from day to day management by the Crown.

My third principal argument suggests that bureaucratic delegation will only improve credibility if government creditors already have influence within a representative assembly. Much theoretical work on delegation and commitment makes the simplifying assumption that once a decision has been made to delegate, it can be reversed only at great cost. More recent work on the politics of delegation has demonstrated that this assumption is not always tenable in practice and that nominally independent government agencies often respond to pressures from partisan political principals. In some political systems, politicians who delegate to nominally independent bureaucrats actually retain substantial room to influence future decisions. One way in which this can occur is through the implicit or explicit threat of revising a bureaucratic agency’s statute. Such threats will be more menacing in political systems where power is concentrated in the hands of a single individual, such as a monarch or dictator. In contrast, if government creditors have political influence within a representative assembly, then they may be able to block any attempts to revise an agency’s statute.

Interestingly, this argument also corresponds closely with eighteenth century views about the feasibility of establishing a national bank in an authoritarian system. Kaiser (1991) was the first to highlight the fact that contemporary observers in eighteenth century France suggested that a national bank could have little authority in an absolute

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38 A point made by several papers including Epstein and O’Halloran (1999), McCubbins, Noll, and Weingast (1989), see also Keefer and Stasavage (2001, 2002).
monarchy. As far as credibility is concerned, then, bureaucratic delegation is at best a complement, but not a substitute for having representative political institutions.

**<B>When are Representative Institutions Stable?**

One possible objection to my arguments about representative institutions and commitment is that they rest on the assumption that actors who feel disadvantaged by policy decisions have no option but to respect them. This is not a plausible assumption for eighteenth century France, nor for Great Britain, nor would it be justified in many countries today. Chapter 7 considers whether the theoretical propositions about representative government developed in Chapter 2 can hold even in a context where parliamentary groups have an “outside option” of resorting to political unrest.39

Chapter 7’s extension to the theoretical model developed in Chapter 2 relies on the basic idea that actors will be more likely to resort to rebellion the more they dislike the policies adopted by majority vote in the legislature. As a result, “moderate” policies are less likely to trigger extra-constitutional action by the minority. Some theorists like Kelsen (1932) have suggested that the threat that the minority might exercise an outside option can be a force leading to more moderate policies.

Two main conclusions appear from this chapter. First, the process of party formation in a plural society can lead to credible commitment even when there is a threat of unrest. Second, the mere threat of the minority exercising an outside option will not necessarily be sufficient to prompt the majority to adopt a more moderate policy. I then argue that even if members of the majority do not have an incentive to compromise in order to reduce the risk of an outside option being used, when there are multiple political cleavages in society, the process of forming a legislative majority may

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39 In previous work Ellman and Wantchekon (2000) have considered how the existence of this sort of outside option might influence electoral outcomes. Powell (1999, 1996) has considered the effect of outside options (the ability to resort to force) in interstate bargaining.
nonetheless lead both to moderate policy choices and to a reduced likelihood of extra-
constitutional action. Chapter 7 considers this possibility using historical evidence from
France and Great Britain.

The discussion about the stability of representative institutions also raises a
further question: would credible commitment through political bargaining be possible
even outside the framework of democratic institutions? When there are multiple
cleavages it might be possible for political bargaining to result in moderate politics even
in an autocracy. While this is entirely plausible, it would need to be shown what
institutional mechanisms in autocracies allow heterogeneous interests to make
commitments over time in the same way that political parties allow diverse groups to
commit to a common policy platform in representative democracies.

4. Alternative Routes to Credibility

While different features of representative government might reduce risk of default,
there are also alternative forces that could have this same effect. These involve the risk
of capital flight, the possibility for government creditors to serve as a lobby, and the
effect of restrictions on political participation. While each of these factors might allow
commitment, the latter solution achieves this outcome through means which observers
today would characterize as being fundamentally undemocratic.

Capital Mobility

Chapter 2 also considers the issue of reputation as a source of commitment.
When capital is mobile governments may be more wary of taxing it heavily, so as to avoid a massive flight of funds from their countries. This might be true both with regard to taxes on capital, as well as for default, which can be seen as a one-off tax on holders of government bonds. Studies of globalization have made much of this idea recently, and it can be seen as a more general manifestation of Lindblom’s (1982) conception of “the market as prison”, or other arguments about the “structural power of capital”. The implication for public debt may be that rather than studying commitment problems, one might better study the question of how to reduce the preponderant influence of government creditors on policy choices. In the extreme case, if it were possible for owners of capital to shift their assets costlessly and instantaneously in anticipation of government actions, then credibility problems involving debt and capital taxation would disappear altogether.

There are a number of reasons to believe that in the case of government borrowing, capital mobility is unlikely to serve as a full solution to commitment problems. The most basic reason involves the fact that by lending to a sovereign government, individuals actually cede control over their capital. This means that in the case of default, in the absence of some third-party enforcement, the only way creditors can sanction a government is by refusing to lend in the future and investing their funds elsewhere. This is the key intuition behind a model developed by Bulow and Rogoff (1989) who show that fear of high future borrowing costs may be insufficient to

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41 On this latter issue see Przeworski and Wallerstein (1988). Arguing that capital mobility can actually help promote democracy, Bates and Lien (1985) have investigated the implications of capital mobility in the historical context of eighteenth century France and Great Britain.  
42 This possibility has been formally modeled by Kehoe (1989).  
43 Arguments about the structural power of capital often also overlook the significant costs that capitalists face in reversing other types of investment decisions. In recent years economists have recognized that many investment choices, such as the choice to build a factory in a particular country, are essentially irreversible once made (see Dixit and Pindyck, 1994).
dissuade many governments from defaulting. It is true that a government may suffer from an immediate increase in borrowing costs if it is even feared that default is likely, but this does not alter the basic argument that capital mobility may be insufficient to guarantee commitment to repay debt. Finally, this argument is also supported empirically by the fact that today, in a context where capital is much more mobile than in the eighteenth century, many emerging market countries still pay very high risk premia on their debt issues. If capital mobility could guarantee commitment, one would expect emerging market countries to be able to borrow at interest rates similar to those paid by OECD governments.

Financial Sector Lobbying

Rather than trying to influence policy through representation in a legislature or participation in a political party, an alternative route for government creditors to gain influence on economic policy is to act as a lobby. The advantage of this strategy is that it may necessitate less compromise, and it may allow government creditors to retain their influence regardless of which political party has majority control. For lobbying to be successful, representatives must not be fully accountable to their electors. Otherwise, those who represent the non-debt holding majority will be obliged to follow the majority’s ex post preferences to default. Under these circumstances, even if government creditors are in the minority within a legislature, they may nonetheless be assured of repayment of government debt if their lobbying influence is sufficiently strong. Lobbying can involve campaign finance contributions (to legislators who value remaining in office regardless of the policies they choose), patronage, or bribes. In cases where ownership of financial capital is concentrated in a narrow group of wealthy individuals while ownership of other factors of production is spread more widely, then

44 I discuss this model in greater detail in Chapter 2.
lobbying will lead to outcomes which are less democratic to the extent that some individuals will have greater lobbying resources than others. While evidence that financial sector interests lobby governments is plentiful, as with the argument about capital mobility, one should not immediately assume that this provides an irresistible force in all countries obligating governments to repay their debt. Otherwise it would be difficult to explain why many governments continue to pay very high risk premia on their debt issues.

**Restrictions on Political Participation**

Rather than rely on the ability of government creditors to buy influence, in many countries historically, credibility of public debt has been reinforced by fundamentally undemocratic means - restricting the access of certain groups to the political system. This can involve formal restrictions on the suffrage as well as requirements for serving as a representative. While laws of this type controvert what most people today would see as a fundamental democratic principle, it is important to recognize that in the eighteenth century it was commonly seen as being legitimate to restrict political participation in this manner. There was broad support in eighteenth century Britain for the idea that only those who owned property should be eligible to vote and to hold elected office, and despite controversy, this principle remained a feature of politics in both the early American republic and in France in the years after its revolution (Manin, 1997). Restrictions on political participation undoubtedly provided the principal explanation for the weak representation of labor in the British Parliament after 1688 as well as in the French National Assembly after 1789. As a result, this book makes the simplifying assumption that labor was essentially absent from politics.

5. Observable Implications of My Arguments
My goal for the empirical sections of this book is to adopt a methodological approach that is eclectic yet rigorous. The phenomenon I seek to explain is government credibility, defined as the perceived likelihood that a government will honor debt contracts. Chapter 4 presents a number of different measures of credibility for the French and British governments over the course of the eighteenth century. I then examine relevant observable implications for my three arguments concerning constitutional checks and balances, party formation, and bureaucratic delegation. Some observable implications can be tested quantitatively using time-series evidence. More frequently, I will rely on historical evidence.

My first argument suggests that constitutional checks and balances can improve credibility, but they are neither a necessary nor a sufficient condition for doing so. This is obviously quite a general statement, and so, based on available evidence from France and Great Britain, I restrict myself to one main implication of the theory: credibility may not be assured even when there are multiple veto points. For Great Britain I consider to what extent there was substantial variation in the perceived likelihood of a default after 1688. As argued above, the existence of significant volatility in interest rates on government debt after the Glorious Revolution is a potential indication that the constitutional changes of 1688 were not sufficient to establish credibility for UK government borrowing. For France, the evidence is necessarily more speculative for the period before 1789. Existing work has assumed that the Estates General, if convened, would have taken actions in order to repay debts. I consider whether there is evidence to support an alternative interpretation; given the balance of political forces in France at the time, a default would have occurred even if the Estates had been called. I perform a similar exercise for the case of the French Constituent Assembly in 1789.
My second argument suggests that in countries where there are multiple dimensions of political conflict, the process of forming a majority will lead to commitment, provided that government creditors are members of the coalition. One observable implication here is that trends in partisan control should be correlated with trends in credibility, and this can be tested with time-series evidence on partisan control of government, interest rates on government debt, and prices for assets such as Bank of England stock. One should expect to observe that government creditors were members of the party which tended to be associated with low default premia when it was in power. I also examine to what extent contemporary observers saw changes in the partisan control of government as significant for financial markets. There are further observation implications of this second argument. If credibility was high we should expect to see that multiple dimensions of conflict existed, and that members of coalitions had the necessary mechanisms to enforce agreements over time. Both of these implications can be evaluated using historical evidence on the functioning of political parties in the British Parliament after 1688. I do the same for the French Constituent Assembly after 1789.

My third argument involves the claim that bureaucratic delegation will only improve credibility in cases where government creditors already have political veto power. This issue can be addressed by comparing British and French experiences in this area. Both the British and French governments made attempts during the course of the eighteenth century to improve their access to credit by creating national banks or by borrowing through intermediaries, yet only in the British case did government creditors actually enjoy significant power within a representative assembly. In Britain the principal innovation in this area involved the creation of the Bank of England in 1694 and subsequent decisions to increase the role which it played in government finance. In
France monarchs also attempted to use bureaucratic institutions to improve their access to credit. These involved the creation of John Law’s bank (1716-1720) and a number of initiatives to borrow through bureaucratic intermediaries. If the evidence here is consistent with the argument, then one would expect to observe that the failure of bureaucratic institutions to improve credibility in France was directly attributable to the monarchy’s penchant for unilaterally revising contracts with agents of the crown. In Great Britain the argument would imply that the performance of the Bank of England was closely linked to the political fortunes of the Whig coalition in Parliament that continually supported the Bank. In the absence of Whig support, my argument would imply that the Bank would have been subject to the same sort of interference as occurred with bureaucratic arrangements in France.

6. Plan of the Book

Chapter 2 of this book presents the credibility problem in government borrowing in greater detail, and it builds a game theoretic model which I use to support my three arguments about checks and balances, political parties, and bureaucratic delegation. Chapter 3 then presents historical background material by reviewing the development of public borrowing in early modern Europe. This includes a discussion of the emergence of modern institutions for public borrowing in the Netherlands during the sixteenth century, followed by England after 1688. Chapter 4 reviews the experience of public borrowing in Great Britain and in France between 1688 and 1792, relying on data covering rates of interest on government loans and episodes of default in order to measure trends in credibility. The goal here is to make comparisons both between the two countries and over time within each country. Chapters 5 and 6 continue the
investigation by examining to what extent observed trends in credibility can be accounted for by the structure of democratic institutions. Chapter 7 then considers the stability of representative institutions. Chapter 8 concludes.
Chapter 2

A Model of Credible Commitment

under Representative Government
1. Introduction

In the first chapter I presented three arguments about the credibility-enhancing effects of constitutional checks and balances, political parties, and bureaucratic delegation. This chapter derives and develops each of these arguments more formally, using a game-theoretic model of bargaining among legislators. I construct a simple model where legislators must set taxes on land and capital in order to meet an exogenous budget constraint. Partisan preferences are included explicitly by allowing legislators to represent districts that derive variable amounts of income from land and from capital. This division fits an eighteenth century political context. This political model of capital taxation, which is adapted from Persson and Tabellini (1994), can also be applied to the politics of public debt, because a default on debt represents a one-off tax on owners of this type of capital (government bonds).

A primary implication of the model is that landowning majorities can face a credibility problem. Once owners of capital have made investment decisions (such as purchasing government debt), a landowning majority will have an ex post incentive to raise all revenues from income on capital. Anticipating this outcome, capital owners will fail to invest, and in equilibrium, all groups will be worse off compared to a situation where the majority could commit to a moderate tax rate on capital. I next show that if legislators also bargain over a second issue dimension, such as the degree of religious toleration, and if landowner preferences are split over this issue, then more liberally minded landowners may moderate their demands with respect to taxation in order to acquire support of capitalists on the issue of religious toleration. As a result, in cases where legislators bargain over multiple issues, credible commitment can emerge as a byproduct of partisan political
bargaining. I use the specific example of religious toleration here, but the model could be used to fit the patterns observed in a number of societies, which are divided along an economic cleavage, as well as a second, socio-political cleavage.

As a next step, I expand the model to consider the effect of political parties. In the legislative bargaining context I consider, there is a strong incentive for individual legislators to form durable coalitions so as to increase their likelihood of being in the majority, even if this necessitates compromising with respect to policy. I show that under certain specific conditions, formation of a party will lead to lower expected capital taxation. This supports the argument I made in Chapter 1 that the process of party formation may lead to credible commitment if a society is divided by multiple cleavages. Given this fact, I also establish why we would expect credibility to vary with trends in partisan control of government.

The next section provides formal support for my argument about constitutional checks and balances. To do this I show that unless there is some mechanism ensuring that government creditors have veto power, then the mere fact of having constitutional provisions like bicameralism will do little to improve credibility. As a tractable way of modeling the effect of having a bicameral legislature, I expand the legislative bargaining model by allowing for the possibility that one member of the legislature has veto power over policy decisions. I consider two scenarios. In the first scenario the future identity of the veto player is known. In this case the model predicts, not surprisingly, a lower expected rate of capital taxation when capital owners have veto power and the reverse when landowners have veto power. I next consider how expected taxation is affected if the future

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45 This motivation for the formation of political parties draws on ideas developed by Schwartz (1989) and Aldrich (1995). To formalize party formation within a legislative bargaining model, I draw on work by Jackson and Moselle (2002), as well as by Calvert and Fox (2000).
control of veto points is allocated randomly and capital owners do not know the identity of veto players at the time they make investment decisions. Under these conditions the expected effect of veto power on credibility is much less significant.

The final section of the chapter provides support for my third argument that bureaucratic delegation will fail to improve credibility under autocracy, or under any other system where government creditors lack influence within a representative assembly. I consider the effect of giving an independent agency the right to manage debt and to make decision like prioritizing debt repayment over other expenditures in the event of a revenue shortfall. Following recent literature on the politics of delegation, I then assume that this decision to delegate can be reversed by the legislature. I argue that under these conditions, bureaucratic delegation will be meaningless in cases where capital owners are neither in the majority, nor part of a broader coalition, because the landed majority will have an ex post incentive to reverse its decision to delegate. Delegation can only be effective in cases where owners of capital expect to be part of a future majority coalition, so that they can block any decision to reverse delegation.

2. Distributional politics and capital taxation

While early models of credibility problems in taxation and borrowing assumed away partisan motivations on the part of governments, researchers have provided strong theoretical and empirical reasons to believe that government policies in this area respond to partisan pressures. Persson and Tabellini (1994) have developed a partisan model of capital taxation which allows for individual heterogeneity in ownership of assets. The results of this model can also apply directly to the case of

46 For a review of theoretical contributions on partisanship and public debt see Drazen (2000) and Persson and Tabellini (2000).
government borrowing, to the extent that government debt is one type of capital investment, and default on debt represents a one-off tax on owners of government bonds. To reflect the groups which held political influence in the eighteenth century, and in particular the exclusion of labor from the political process, I present a model where individuals hold variable endowments of land and capital.

**A Political Model of Capital Taxation**

I assume that a legislature is made up of three players, each of whom has an exogenous endowment, $e$, which reflects the relative importance of land income and income from capital as a share of their constituents total income. Individuals for whom $e > 0$ own more land than the average member of society, and individuals with $e < 0$, own more capital than the average member of society. The quantity of capital income and land income of the $i$th individual in this economy is determined by the following equations where $k_1$ and $l$ denote the average per capita quantities of capital income and land income, with the subscript "1" denoting the first period, and the subscript "i" an individual’s share. Since the stock of land is fixed, I suppress the time subscript for this variable.

\[ k_{i1} = k_1 - e \]  \hspace{1cm} (2.1)

\[ l_i = l + e \]  \hspace{1cm} (2.2)

The game has two periods. In the first period players choose whether to save or to consume their exogenous endowment of capital income, they gain utility from

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47 See Prescott (1977) and Persson and Tabellini (2000). Including a fully specified model of government borrowing here would require several modifications but would not change the basic results.
any consumption $U(c_{i1}) = c_{i1}$, and players are assumed to be risk neutral. Land income cannot be consumed in period 1.\(^{48}\)

In the second period, tax rates on land and capital are chosen subject to a government budget constraint $g$ (expressed in per capita terms in 2.4), and the players consume any after-tax income from capital and land. The government budget constraint might be taken to represent essential expenditure for national defense. Capital saved from period 1 is assumed to earn an exogenous rate of return $r$ as indicated in equation (2.3). Thus capital owners may have an incentive to save. Second period utility $U(c_{i2}) = c_{i2}$ can be expressed as a linear function of both types of income and the tax rates (where $\theta$ is the tax rate on capital income, and $\tau$ is the tax rate on land income).

$$k_{i2} = (k_{i1} - c_{i1})(1 + r) \quad (2.3)$$

$$g = \tau l + \theta k_{i2} \quad (2.4)$$

$$U(c_{i2}) = (1 - \theta)k_{i2} + (1 - \tau)l_i \quad (2.5)$$

Using (2.1) and (2.2), equation (2.5) can be re-written as expressed in (2.6) to show that a player’s second period utility is a linear function of their idiosyncratic endowment, $e$. As a result, while the policy problem of how much to tax capital and how much to tax land is a 2-dimensional one, given the utility functions and the government budget constraint defined above, the problem can be reduced to a

\(^{48}\)This assumption does not alter the results. An alternative would be to specify a game with one period where capital owners are required to make their investment/consumption decision in advance of tax rates being set.
unidimensional one where players must choose a policy defined as the difference between the tax rate on capital and the tax rate on land \((\theta - \tau)\).\(^{49}\)

\[
U(c_{12}) = (1 - \theta)k_2 + (1 - \tau)l + \epsilon_i(\theta - \tau)
\]

(2.6)

Given (2.4) and (2.6), individuals will save all of their period 1 capital as long as expected taxation is low enough to make this worthwhile, or if \((1 - \theta^e) > 1/(1+r)\). The expected tax rate on capital, \(\theta^e\), will depend upon expectations about bargaining between the three legislators. In the case where 2 of the 3 legislators represent landowners \((e>0)\), a credibility problem is likely to exist (I leave formal specification of the equilibria for the next sub-section). Landowners would prefer owners of capital not to consume all of their capital in the first period. Otherwise, the government budget constraint must be satisfied exclusively with taxes on land income. The problem is that in period 2, if capital owners decide to save, then a landowning majority would have an incentive to increase taxes on capital \textit{ex post}, setting \(\theta\) equal to \(g/k_2\). Owners of capital will anticipate this incentive, and as a consequence, they will consume their entire endowment of capital in period 1. The public good will then need to be financed exclusively by taxes on land income at a rate of \(g/l\). This is an undesirable outcome for all concerned.

A key implication of the above model is that a landowning majority would benefit from the ability to commit to choosing a rate of taxation lower than \(g/k_2\). Persson and Tabellini (1994) argue that a society with a majority that has a commitment problem might have an incentive to elect a legislator with a personal interest in taxing capital lightly. This raises questions, however, about how such an arrangement could be sustained, in particular if there are re-election concerns. In practice, eighteenth century European political institutions tended to bias policies in

\(^{49}\) Persson and Tabellini (1994) establish this result following Grandmont (1978).
favor of landowners who were concerned about being expropriated by those without property. These restrictions on political participation might have credibly committed the poor to not expropriating the rich (through undemocratic means), but they did little to solve the credibility problem landowners suffered with respect to capital taxation.

Another frequently evoked solution to credibility problems involves reputation. Governments may refrain from opportunistic behavior because of the negative future consequences that such decisions might have. If a government has made *ex post* changes in capital taxes in the past, it may be less likely to enjoy significant capital investment in the future. Likewise, a government which defaults on its debts may find it difficult to attract new lenders in the future, or it will be forced to pay a default premium on its debt issues. While it is well known from the theory of repeated games that actors who do not discount the future too heavily may be able to sustain equilibria in a repeated context which would not be sustainable in a one-shot game, it is also well known that this solution is by no means guaranteed.

In the case of government debt, the likelihood of obtaining a reputational solution may be even less plausible than with capital taxation. Bulow and Rogoff (1989) show that reputational forces will be insufficient to guarantee debt repayment in equilibrium as long as a government can continue to hold assets abroad after it

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50 Fear of future consequences here could involve either the anticipation that lenders will resort to some sort of punishment strategy, or alternatively that a default will have a major impact on lenders belief about a borrower’s “type”. See Tomz (2001, 1999) for a discussion of reputation and public borrowing. He argues that reputational models with incomplete information, where investors learn about a borrower’s commitment to repay, provide a better fit with empirical observations than do complete information models where lenders follow trigger strategies in order to sanction defaults.
defaults. These foreign assets can be used to insure against future negative economic shocks. Following the Bulow and Rogoff model, debt repayment can only be ensured if creditors are able to impose additional costs on defaulters, such as seizure of assets or restrictions on trade.

**Multi-Issue Bargaining and Credible Commitment**

While political economy models of macroeconomic policy frequently consider only one dimension of social conflict, such as rich vs. poor, labor vs. capital, or creditors vs. debtors, in practice economic policies are set by legislators who bargain simultaneously over multiple additional issues including foreign policy, religion, and social policy. It has long been known that this legislative context opens up the possibility that politicians might compromise on one dimension of policy in order to receive legislative support on another issue. Likewise, the comparative politics literature on "cross-cutting cleavages" has explored how heterogeneity of preferences across two dimensions can lead to compromise policy choices. In this sub-section I explore formally whether the presence of a second issue dimension over which landowner preferences are split can increase possibilities for credible commitment to moderate rates of capital taxation.

My analysis follows the frequently used model of legislative bargaining developed by Baron and Ferejohn (1989). They extend the Rubinstein model of alternating offers bargaining to a situation where there are more than two players and decisions are carried by a majority. In their model the sequential nature of the bargaining process allows one to establish equilibria where the social choice

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51 They show this in the context of an infinite horizon game where revenues are stochastic in each period.

52 A different conclusion is reached by Chari and Kehoe (1993), who assume that after default a government does not have the option of holding assets abroad in order to insure against future shocks.
literature frequently would predict instability, in the absence of a structure induced
equilibrium of the type identified by Shepsle (1979). This bargaining model has been
extended by Baron (1991) to cover bargaining over multiple issues where preferences
are heterogeneous.

As in the previous section, I assume that there are three players: A, B, and C.
Each player has preferences over the issue of taxing land vs. capital, and in addition,
each also has preferences over the degree of religious toleration. Preferences are
separable across the two dimensions. As previously, preferences over taxation
depend on an individual’s idiosyncratic endowment, $e$, except I now assume $e$ to be
bounded by the interval [-1,1]. To increase tractability of the model without altering
basic results, I also assume that the government budget constraint can be met by a
100% tax on either land or initial capital income, and I normalize each of these
parameters to 1 ($g = k_1 = l = 1$). These assumptions imply that any legislator whose
constituents own more land than capital ($e > 0$) will prefer to set $\theta = 1$ and $\tau = 0$, and
any legislator whose constituents own primarily capital ($e < 0$) will prefer the
reverse. It is important to note, however, that for a legislator with $e > 0$, the utility
loss of setting $(\theta - \tau) < 1$ will be increasing in $e$.\textsuperscript{53}

I also assume that legislators have preferences over a second issue dimension,
the degree of religious toleration $\rho$, with $\rho = 1$ implying full toleration and $\rho = -1$
implying no toleration. The second period utility functions for player $i$ can be
written in terms of $(\theta - \tau)$ and $\rho$ as in (2.7). In these equations $z$ is an exogenous
parameter analogous to $e$ (and also bounded [-1,1]). For coherence, I have specified
utility with respect to religious toleration in a similar manner to utility with regard to

\textsuperscript{53} Given the distributions of preferences that I subsequently consider for the three players,
this normalization also implies that average capital income in the legislature may differ from
average incomes in society. This is a useful simplifying assumption that does not alter the
basic results.
taxation. Any individual with \( z > 0 \) will prefer full toleration and the reverse will be true for any individual with \( z < 0 \). The utility loss from setting \( \rho \) away from an individual’s ideal point will be determined by the magnitude of \( z \). As a result, \( z \) and \( e \) determine the relative weight which players place on each dimension in their utility function, or in a sense, the "salience" of each issue.

\[
U_{12} = (1 + e_i (\theta - \tau)) + (1 + z_i \rho) \tag{2.7}
\]

As a final specification, players also share a common discount factor \( \delta \). The discount factor might be less than 1 for standard time-preference reasons. Existing literature has also suggested that discounting could reflect the possibility that a legislator would not be re-elected if bargaining continues to the next round.\(^{54}\) An additional reason for discounting in the context of this game could involve an increasing possibility that failing to satisfy the government budget constraint for one period will result in invasion (in which case legislators would be replaced), or in some other unfavorable outcome.

The game proceeds in the following sequence.

1. Players receive their exogenous endowments \( e \) and \( z \), and they choose whether to consume their capital endowment or to save it.

2. One of the three players is chosen at random to propose a set of policies (\( \theta - \tau \) and \( \rho \)) which is then voted on, without possibility for amendment, under majority rule. If two players vote in favor of the proposal, the policy is implemented and the game ends.

\(^{54}\) This follows Baron (1989) and Baron and Ferejohn (1989).
3. If two players do not support the proposal, stage 2 is repeated, potentially an infinite number of times.

To identify the possible sub-game perfect equilibria of this legislative bargaining game I first make the assumption that players can only adopt stationary strategies, that is strategies where actions chosen do not depend upon the history of the game. I later relax the assumption of stationary strategies. Finally, I also restrict my attention to pure strategy equilibria.

The sub-game perfect equilibria of this legislative bargaining game can be identified as follows. A sub-game perfect equilibrium must satisfy the condition that each player maximizes her own utility subject to the constraint of offering another player at least her expected utility from continuing the game. In addition, players must not be able to improve on their utility by unilaterally deviating and offering to an alternative player.

While the literature on legislative bargaining is concerned with deriving general propositions about government policy choices, my goal here is to develop a more specific proposition, that multi-issue bargaining may lead to government commitment in the area of capital taxation even when a majority of members of the legislature represent landowners. To illustrate this possibility I consider four specific configurations of preferences for the three legislator game and solve for the sub-game perfect equilibria. The other reason for using specific examples is that attempts to establish general properties of equilibria in this game with multiple policy dimensions have proved difficult (Baron, 1991). The appendix presents all calculations.
Example 1 - Single Issue Bargaining. As a benchmark for comparison, I first consider an example where players care only about tax policy (that is \( z_a = z_b = z_c = 0 \)) and where there is a landowning majority. Player A owns only capital, and players B and C own only land. The two sub-game perfect equilibria of this simple case are particularly straightforward. In both cases Player B proposes \((\theta=1, \tau=0)\) to C and C proposes the same policies to B. In the first equilibrium Player A will propose \(\theta-\tau=(8\delta-6)/(3-\delta)\) to B, while in the second equilibrium she will make an identical proposal to C. A can successfully propose a tax of capital of less than 100% to B and C as long as they discount the future. The expected rate of capital taxation (which is identical in each of these equilibria) is the simple average of these three possibilities. It ranges from 1 (when \(\delta=1\), so there is no discounting) to 0.66 when \(\delta=0\).

Example 2 - Multi-Issue Bargaining. Bargaining outcomes change significantly when one introduces a second issue dimension. This helps to establish one of the main observable implications of my argument about party formation; when capital owners are in the minority, multi-issue bargaining may nonetheless lead to credible commitment if landowners are split over a second issue. Figure 2.1 depicts a situation where society is composed of a landowning majority but where landowners are divided in terms of their attitudes towards religious toleration. Player C is a conservative landowner who opposes toleration, Player B is a liberal landowner who favors toleration, and Player A is a capitalist who also favors religious toleration. Figure 2.1 can be taken as a stylized representation of politics in many countries in early modern Europe where landowners made up the majority in political assemblies, but where holders of financial capital were also present, and where landowners were themselves split over policies such as religion, foreign policy, and individual rights.
Figure 2.1 – Preferred Policies for Taxation and Religion

\[ \rho = 1 \]

Full religious toleration

\[ \rho = -1 \]

No religious toleration

Player A

(-1,1)

(\theta-\tau) = -1
Tax only land

Player B

(1,1)

(\theta-\tau) = 1
Tax only capital

Player C

(1,-1)

(\theta-\tau) = 1
Tax only
In Example 2 I assume that players own exclusively land or exclusively capital (so \( e_a = -1, e_b = 1, e_c = 1 \)) and the following parameters determine their utility gain from religious toleration \((z_a = 1, z_b = 1, z_c = -1)\). Equations 8a-8c represent the second period utility functions for the three players.

\[
U_{a2} = 2 - (\theta - \tau) + \rho \\
U_{b2} = 2 + (\theta - \tau) + \rho \\
U_{c2} = 2 + (\theta - \tau) - \rho
\] (2.8a-2.8c)

Given the above configuration of preferences, there are two sub-game perfect equilibria, and in each of these the expected rate of capital taxation is substantially lower than in the single issue case. In the first equilibrium, Player A offers to B, B offers to A, and C offers to B. In the second equilibrium Player A offers to B, B offers to C and C offers to B. Each of these two sub-game perfect equilibria exist for all values of the discount factor \( \delta \).

Equations 9a-c show the proposals for each player in the first equilibrium. Player B proposes her own ideal point, regardless of how heavily players discount the future, and A votes in favor based on the gains she receives in terms of religious toleration. This strong bargaining position reflects the centrality of Player B’s preferences with respect to the other two players. For low discount factors \((\delta < 0.75)\), Player A also proposes her ideal point, although when players discount the future less heavily, A is obliged to moderate her proposed tax policy in order for B to accept. Likewise, for high discount factors Player C moderates her proposal with respect to religious toleration. The equilibrium proposals are as follows.
\[ \theta - \tau_a = \frac{9 - 10\delta}{2\delta - 3}, \rho_a = 1 \]  
\[ (2.9a) \]
\[ \theta - \tau_b = 1, \rho_b = 1 \]  
\[ (2.9b) \]
\[ \theta - \tau_c = 1, \rho_c = \frac{9 - 10\delta}{2\delta - 3} \]  
\[ (2.9c) \]

In Example 2 for all discount factors, the expected rate of taxation is lower than the case where players bargain only over taxation (as shown in Figure 2.2). The appendix demonstrates that this result holds more generally as long as the three players place equal weight on the religious toleration dimension. While the equilibrium tax proposals by B and C are the same as in the single issue example, Player A now can attract Player B’s support with a proposal for a more moderate rate of capital taxation, combined with full religious toleration. 55

Example 3 - Multiple Issues When Player B Has a Mixed Income. I next consider how the equilibrium proposals of the three players change when Player B, the liberal landowner, earns part of her income from capital, instead of earning income exclusively from land. Under these conditions there is a sub-game perfect equilibrium in pure strategies where Player A offers to B, B offers to A, and C offers to B. The equilibrium tax proposals of A and B now change significantly, as one might expect, leading to a significant decrease in the expected rate of capital taxation. This reflects the fact that as the share of her income owned from land decreases, Player B loses less utility from any proposal for a capital tax rate lower than unity. Figure 2.2 illustrates this result using an example where Player B earns 25% of her before-tax income from capital. The appendix establishes a more general result

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55 In the second equilibrium, the expected rate of capital taxation is identical to that in the first equilibrium, and so it is not reported.
showing that expected capital taxation decreases as the share of Player B’s income derived from land decreases.

Example 4 - Multiple Issues when Religion is Less Salient for Player A. As a final variation, I consider how expected taxation changes as the weight that Player A places on religious toleration $z_a$ decreases. There is once again a sub-game perfect equilibrium in pure strategies where Player A offers to B, B offers to A, and C offers to B. As discussed in the appendix, this equilibrium result holds for all except extremely high discount factors. Example 4 is not illustrated in Figure 2.2, though it is considered in greater detail in the next section.

In sum, these results show under several different scenarios how bargaining between legislators over multiple issues will lead to lower rates of taxation on capital than would prevail if players bargained only over taxation. To the extent that cross-issue bargaining leads to expected rates of capital taxation which are sufficiently low that owners of capital will save and invest (that is if $1 - \theta^* > 1/(1+r)$), then we can say that it improves possibilities for credible commitment.
Figure 2.2 – Expected Capital Taxation: Single vs. Multi-Issue Bargaining

Notes: example 1: $z_a = z_b = z_c = 0; e_a = -1, e_b = 1, e_c = 1$. example 2: $e_a = -1, e_b = 1, e_c = 1, z_a = 1, z_b = 1, z_c = 1$. example 3: $e_a = -1, e_b = 0.5, e_c = 1, z_a = 1, z_b = 1, z_c = -1$. 
Robustness of the results

It is worth considering to what extent the results presented above depend on key assumptions in the legislative bargaining model. First of all, to what extent is it reasonable to assume that players discount the future and similarly that time periods have length greater than zero? In the context of legislative bargaining the argument of lengthy periods seems to make sense, given the time it usually takes to reintroduce a bill. One could also ask to what extent my results depend upon the assumption that there is not an exogenously defined status quo. In practice, similar results might be obtained if there was an exogenous status quo and all players received the same utility from this set of policies. A status quo closer to a particular player's ideal point would, predictably, result in a bargaining outcome closer to that player's ideal point. As a result, my basic results here are unlikely to depend on the status quo assumption. Finally, what about the assumption that players vote without possibility for amendment? One possibility would have been to consider an "open rule" of the type described by Baron and Ferejohn (1989) where, subsequent to any proposal, another legislator is chosen at random to propose an amendment. This would have the effect of moving the bargaining outcome towards the ideal point of Player B (the liberal landowner), but the core result about multi-issue bargaining leading to more moderate taxation would still hold.

One possible further extension to the model would be to consider how bargaining outcomes are affected if owners of capital or owners of land were able to lobby legislators. This could be done by using part of their income to make payments in return for favorable votes.\footnote{Helpman and Persson (1998) have considered this possibility in the context of a legislative bargaining game where players have homogeneous preferences.}
game presented here, then one could add an extra term to each player’s utility function to reflect utility gained from any lobbying payments. This would entail relaxing the assumption that legislators are perfect agents of the groups they represent. One likely implication would be that even if capital owners are in the minority and there is no ideological dimension of policy over which landowners are split, then capital owners might nonetheless be able to make side-payments in order to form a coalition with one of the two landowning legislators.57

3. Party government and credible commitment

Now that I have laid out the basic model and considered the effect of cross-issue bargaining, the next step is to explicitly consider party formation. In this section I show how party formation can lead to credible commitment when players bargain over multiple dimensions of policy. In the examples I have presented two players might be able to significantly improve on their expected utility if they could commit to supporting a common policy platform that represented a compromise between each party member’s ideal set of policies. This is the rationale for party formation established by Schattschneider (1942) and more recently by Schwartz (1989) and Aldrich (1995). As an example, if capitalists and liberal landowners could agree to form a political party, and thus exclude the conservative landowners from any majority, then they are likely to choose a party platform that combines religious toleration with a policy of moderate capital taxation. The result would be for commitment to moderate capital taxation to emerge as a byproduct of coalition bargaining between heterogeneous interests. I first consider a model of parties

57 Jackson and Moselle (2002) produce an analogous result.
proposed by Jackson and Moselle where one assumes players can commit to a party platform. I then relax this assumption and pursue an alternative provided by Calvert and Fox (2000) who model parties as the outcome of a repeated game.

**<B> Parties as Commitments to a Platform**

Following Jackson and Moselle (2002), the game proceeds in the same sequence of stages as in the previous section, except that at the outset, a group of players may enter into a cooperative agreement to propose a specific set of policies if recognized and to vote to approve such a proposal if another member of the party is recognized. If a player outside the party is recognized, then party members vote to reject any proposal. This in effect ensures that the party platform is implemented as policy. This specification can be taken as implicitly assuming that membership in a political party is an underlying repeated game in which players can commit to support a common party line, but for reasons of tractability one does not make this intra-party bargaining more explicit.

The next relevant question is what exact set of policies members of a party will adopt. Jackson and Moselle (2002) model party members as adopting the Nash bargaining solution, with the reservation payoffs determined by expected utility from the non-cooperative bargaining game when there are no parties. So, for example, the vector of policies $x$ chosen by a party of Player A and Player B would maximize the following expression:58

$$\arg \max_x (U^{x}_{a2} - U^{nc}_{a2})(U^{x}_{b2} - U^{nc}_{b2})$$

(2.10)

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58 A logical alternative for modeling intra-party bargaining would be to make it non-cooperative by specifying an alternating offers bargaining game between party members. But to the extent that time periods for intra-party bargaining are short, the equilibrium result would converge to the Nash bargaining solution.
One important feature of the way I model parties here is that this method distinguishes between "significant" party behavior, which involves voting behavior that would not be observed in the absence of a cooperative agreement, and "party-like" behavior where party cohesion is attributable merely to similarities in preferences between players. As a result, it responds to Krehbiel’s (1993) critique that voting cohesion alone is not sufficient to demonstrate that parties matter.

As in the previous section, I consider several specific preference configurations, but in this case showing how outcomes can change if players form a political party. If players A and B are able to sign a binding agreement to support a party platform, then they will agree to full religious toleration ($\rho = 1$), and they will then adopt a compromise tax policy which maximizes the product of their utility gains, as in (2.11).

$$\arg \max_{(\theta - \tau)} (2 + e_a (\theta - \tau) + z_a - U_{a2}^{nc})(2 + e_b (\theta - \tau) + z_b - U_{b2}^{nc})$$ (2.11)

It should be noted, however, that it may also be possible for B and C to both improve on their expected utility by forming a party, in which case the expected rate of taxation would be 1. As a consequence, credibility of taxation will depend crucially on whether the party which has control of the legislature is a landowning party (formed by B and C) or a party which includes both landowners and capitalists (formed by A and B). While the model presented here does not allow for the majority party to change due to electoral shifts, we can nonetheless draw a clear observable implication for empirical work: perceived credibility of debt repayment will be correlated with partisan shifts in control of the legislature. This is an observable implication of the theory that I consider at length in Chapters 4, 5, and 6.

\[59\] It is not possible in any of the examples for A and C to improve on their expected utility by forming a party.
Example 1 - Single Issue Bargaining. The results of example 1, where players bargain only about taxation, are straightforward. It is impossible for A to form a party with either B or C, but B and C can improve on their expected utility by forming a party. This provides an important observable implication for the empirical chapters: parties will not improve commitment to moderate capital taxation if society is divided along a single political cleavage.

Example 2 – Multi-Issue Bargaining. When players bargain over multiple issues it is possible for them to improve on their expected utility by forming a party, and this process of party formation can lead to moderate capital taxation in equilibrium. In example 2, as before, Player A owns only capital and favors religious toleration, Player B owns only land and favors toleration, and Player C owns only land and opposes toleration. While policy in terms of religious toleration is altered when compared to the non-cooperative equilibrium, the expected rate of capital taxation produced by Nash bargaining between A and B is in fact identical to the expected outcome of the non-cooperative equilibrium. This result reflects two things. First, B would lose less than would A from a breakdown in intra-party bargaining. This then influences the outcome of Nash Bargaining between A and B. In addition, due to their identical preferences with regard to religious toleration, A realizes a substantial utility gain from forming a party with B, even if the expected capital tax is unchanged. Finally, it should also be noted that it would be possible for B and C to form a party given these parameter assumptions.

Example 3 - Multiple Issues When Player B Has a Mixed Income. As previously, example 3 examines the effect of a decrease in $e_B$, so that Player B is now assumed to derive part of her income from capital. In example 3 for all discount factors the expected rate of capital taxation with a party of A and B is lower than in the non-
cooperative equilibrium (see Figure 2.3). This result reflects the fact that B suffers less of a utility loss from compromising on the taxation dimension and that her preferences with respect to religious toleration are identical to those of player A.

Example 4 - Multiple Issues When Religion is Less Salient for Player A: This example demonstrates how taxation is affected when Player A places less weight on the issue of religious toleration than on that of taxation. Nash bargaining between A and B now produces an expected rate of capital taxation which for all discount factors is lower than the tax rate in the non-cooperative equilibrium.

Figure 2.3 - Effect of Party Formation on Capital Taxation (Example 3)

Notes: $e_a=1$, $e_b=0.5$, $e_c=1$, $z_a=1$, $z_b=1$, $z_c=-1$. 

Expected rate of capital taxation

Discount factor
Parties as Equilibria

The major unaddressed issue with parties as I have modeled them so far involves the assumption that once they form a party, individual members can commit to proposing only the agreed set of policies if recognized and to voting only in favor of identical proposals. Modern political parties have evolved a number of different disciplinary devices which can help solve this problem. So, for example, party leaders frequently have the prerogative to select and de-select candidates who wish to run on the party’s ticket.\textsuperscript{60} Calvert and Fox (2000) have made a significant advance towards incorporating mechanisms of party discipline within a legislative bargaining model that they extend to a repeated game (in this case one which does not end once an initial set of policies is chosen). In their model party members can pursue non-stationary strategies that involve sanctioning any member who deviates from an agreed party platform. The sanctioned member thus goes into "bad standing", implying exclusion from benefits shared by the party. The punishment strategy used is limited in the sense that a player only remains in "bad standing" for a finite number of periods.\textsuperscript{61}

The model developed by Calvert and Fox (2000) is clearly appealing in that it more explicitly models how real-world political parties function. It also involves additional complexity, though, in terms of extending the Baron-Ferejohn framework to a repeated game context. They deal with this problem in part by restricting their attention to a game where preferences are homogeneous and legislators bargain over how to divide a fixed sum of benefits. In order to consider how parties influence the

\textsuperscript{60} A second possibility, modeled by Diermeier and Feddersen (1998), and Huber (1996), is that legislative prerogatives, such as the ability for a prime minister to call a vote of confidence, can also promote party discipline.

\textsuperscript{61} This follows Carruba and Volden (2000). Jackson and Moselle propose an alternative definition of a “stable” party as being the party which provides each member with greater utility than could be obtained from any other potential party.
credibility of capital taxation, however, it is necessary to assume heterogeneity of preferences between owners of land and capital.

I briefly consider here whether players who form a party can enforce cooperation by the use of trigger strategies.\textsuperscript{62} I do this to demonstrate how a party could be sustained as an equilibrium strategy profile of a repeated game, while recognizing that constructing a fully satisfying model in a context of heterogeneous preferences remains a subject for future research. In example 2, if player B formed a party with player A, she might subsequently defect by proposing her own ideal point rather than the agreed party platform, but A could respond by reverting to her equilibrium strategy from the one-shot non-cooperative game. If one retains the assumption that players receive zero utility in each period where a majority does not vote in favor of that period’s proposal, then it is straightforward to show that as long as their discount factor is not too low, A and B can sustain party cooperation based on the knowledge that defections will be punished by the other player reverting to non-cooperative behavior.\textsuperscript{63}

\textsuperscript{62} One should note that while authors like Tomz (2001) have pointed out that trigger strategies may be implausible in many financial market contexts, in a legislature with a smaller number of players, such strategies are more plausible. Chapter 5 provides direct evidence of behavior of this type within British political parties.

\textsuperscript{63} My assumption that the reversion payoff is 0 may not be innocuous. In the purely distributional game modeled by Calvert and Fox (2000), it makes sense to suggest that the reversion outcome is a payoff of 0 for all players, since in each period there is a fixed sum of resources to be divided. When one considers issues such as taxation and religious toleration, however, the reversion payoff may not be equal to 0. It may be the payoff which players derive from the policy which received majority support in the previous period. Given the configuration of preferences in examples 2-4, this could decrease possibilities for A and B to sustain a political party based on trigger strategies. If for example the reversion point was the policy agreed to in the previous period, then B defects from a party with A by proposing its own ideal point to C, who accepts. For subsequent periods there is no point which would offer both A and C a higher payoff. However, any policy which lies on the diagonal between (1,1) and (-1,-1) would offer both A and C an equivalent payoff. This raises the possibility that A could respond to B by proposing one of these policies. This seems plausible, but it adds a further degree of complexity, since it implies modeling a dynamic game where each period is not identical. Baron and Herron (1999) have examined bargaining under these conditions in a finitely repeated game, finding that the game is “remarkably poorly behaved”.
If players A and B follow a strategy of cooperating unless a defection occurs, and subsequently reverting to non-cooperative behavior for the rest of the game, then the following inequality needs to be satisfied in order for Player B to not have an incentive to defect from a party with A in equilibrium.\textsuperscript{64} It is possible to satisfy this inequality for some range of discount factors.\textsuperscript{65}

\begin{equation}
U_{b_2}^{\text{party}}/(1 - \delta) > 4 + \delta(U_{b_2}^{nc})/(1 - \delta)
\end{equation}

(2.12)

Satisfying the above inequality demonstrates that a party of A and B could be sustained as an equilibrium set of strategies in an infinitely repeated game, but this does not of course demonstrate that party cooperation will be sustained. Moreover, it is also possible for B and C to sustain a party for some range of discount factors. As a result, while modeling parties as equilibrium strategy profiles in a repeated game allows one to demonstrate possibilities for party formation, this cannot predict unambiguously which party will form. Finally, if a party is modeled as a non-stationary strategy profile in a repeated bargaining game, then it is also important to note that there are multiple party platforms which could be sustained for either a party AB or a party BC.\textsuperscript{66}

\textless A \rangle

4. Constitutional Checks and Balances

\textsuperscript{64} Given that 4 would be the one period payoff for Player B if she is recognized and defects by offering a proposal of full religious toleration and a capital tax of 1 to Player C.

\textsuperscript{65} And the range of discount factors for which the inequality can be satisfied is consistently larger than the range of discount factors for which A, B, and C could sustain a moderate rate of capital taxation in a repeated game where taxation was the only issue considered. As such, the presence of a second issue dimension expands opportunities for commitment beyond those described in a more simple reputational equilibrium in a game where it is not possible to form parties.

\textsuperscript{66} This corresponds closely to the result in Bawn (1999) where different divisions of payoffs between two members of a coalition correspond to different "ideologies".
 Rather than emphasizing party formation and political compromise, an alternative reason why representative institutions might reduce the risk of default is if they establish constitutional checks and balances, such as the sharing of power between a democratically elected executive and a legislature. In chapter 1, I argued that constitutional provisions establishing multiple veto points were neither a necessary nor a sufficient condition for credible commitment. In what follows I provide formal support for this claim. I show expected capital taxation is reduced considerably if capital owners control a veto point, but multiple veto points have little effect on credibility if future control of veto points is uncertain. One tractable way of modeling the effect of multiple veto points is to consider how expected levels of capital taxation change when one of the three players in the game presented above is given the right to veto any proposal. This veto right might be taken as proxying for a player’s enjoying majority control within a second legislative chamber.

I first consider a case where it is specified in advance that the capital owner (Player A) has veto power. In Example 1, where players care only about the tax dimension of policy, if Player A can veto any proposal, then B and C must make an offer that will satisfy A’s continuation constraint, and as a result, at high discount factors expected capital taxation is significantly lower than in the case where A does not enjoy veto power (Figure 2.4). In Example 2 where players have preferences over both the issue of taxation and religious toleration, the effect of granting A veto power is again very significant, as expected capital taxation tends towards 0 as $\delta \to 1$ (Figure 2.5).

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67 This result concurs with McCarty (2000) who demonstrates that veto power has a greater effect on policies when time-horizons are long. The results are unchanged in example 1 if B or C have veto power, when compared to the case without a veto player. This is due to the fact that they have identical preferences, and even in the absence of veto rights, a majority cannot be formed without either the agreement of B or C.
As a next step, I consider how expected equilibrium capital taxation is affected if veto power is randomly assigned to one of the three players, and capital owners must make their investment decision before veto power is assigned. One reason for considering this random case is that in many instances future control of veto points may be uncertain. Another reason for considering the random case is that as the number of veto points in a political system increases, then unless one group is given privileged representation, we might expect each equally sized social group to have an equal chance of controlling this new veto point. When there is a random veto player, in example 1 expected taxation is only marginally lower than in the case where there is no veto player (See Figure 2.4). The effect of a random veto player on capital taxation is more significant in Example 2.68

The fact that there is relatively little difference between expected capital taxation with a random veto player and expected capital taxation when there are no veto players lends support to my first main argument – unless there is some mechanism ensuring that capital owners control a veto point, then establishing multiple veto points may do little improve to credibility. In a more basic sense, the model here makes clear that the effect of constitutional checks and balances is conditional on the partisan composition of a legislature.

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68 This result might seem surprising. The explanation lies in part in the fact that, relative to the non-veto player equilibrium, A modifies her proposed \((\theta - \tau)\) less when C is a veto player than does C when A is a veto player. In addition, relative to the non-veto player equilibrium, B lowers her proposed \((\theta - \tau)\) when A is drawn as a veto player, while she cannot raise her proposed \((\theta - \tau)\) when C is a veto player, because B already proposes \((\theta - \tau) = 1\) in the no veto player equilibrium. Finally, when drawn as a veto player, C does not raise her equilibrium proposal for \((\theta - \tau)\) either, because she too already proposes \((\theta - \tau) = 1\) in the no veto player equilibrium.
Figure 2.4 – Effect of Veto Power on Capital Taxation
(Single Issue Bargaining)

Notes: $z_a = z_b = z_c = 0; e_a = -1, e_b = 1, e_c = 1$. 
Figure 2.5 – Effect of Veto Power on Capital Taxation
(Multi-Issue Bargaining)

Notes: \( e_a = -1, e_b = 1, e_c = 1, z_a = 1, z_b = 1, z_c = -1. \)
5. Bureaucratic delegation

So far, I have considered the politics of capital taxation in a context where the economic environment is static, and where there is no possibility for delegating any policy functions to bureaucratic authorities. In practice, volatility of revenues may influence credibility of debt repayment to the extent that a sudden revenue shortfall may trigger a default. In this section I explore the possibility that bureaucratic delegation may help to alleviate this problem. I conclude, as suggested in my third main argument from Chapter 1, that delegation will only be effective in cases where government creditors have significant political influence within a legislative assembly. As a result, bureaucratic delegation is a complement rather than a substitute for representative institutions in terms of enhancing credibility. Chapter 4-6 consider in depth whether this proposition is supported by empirical evidence.

To consider why delegation may be relevant for credibility of debt, one needs to consider the effect of revenue volatility. My consideration of capital taxation has so far assumed a situation where there are no economic shocks to complicate policy planning. In reality, exogenous events frequently oblige policy makers to make adjustments in policies such as the level of taxation. For example, the amount of finance yielded by government taxes on land income and capital income will vary with trends in economic growth. If taxes produce less revenue than projected, then a government will either have to decide upon new taxes, cancel certain spending items, or decide to borrow anew to cover the shortfall.

Uncertainty over how much finance a given tax rate will yield has significant implications for the credibility of debt repayment. Take a situation where an actor has purchased a government bond based on the expectation that legislative
bargaining will result in a tax rate on capital which is sufficiently low to make the investment profitable at prevailing interest rates. If subsequently a negative economic shock results in a shortfall in revenues, then repaying debts may require a decision on tax increases or new loans. This could undermine the bargaining position of bond holders if they risk going without repayment for one or more periods.

Exogenous shocks to government revenues could be incorporated into the model by adding a stochastic component $u$ to the government budget constraint, as in equation 2.13, and by having this stochastic component only be revealed after decisions regarding taxation have been made. Any realization of $u$ other than zero will require a new round of bargaining, either to distribute the surplus if $u$ is positive, or to levy new taxes if $u$ is negative.

$$g = \tau l + \theta k^2 + u \quad (2.13)$$

If the realization of $u$ is negative, and government spending $g$ is allocated to both provision of a public good, such as security, and to repayment of debt, then players may face different costs of delay in reaching a new agreement. In particular, if the revenue shortfall leads government bond-holders to go unpaid, then, the reversion payoff for bond holders if there is no agreement will be lower than otherwise.

One way of reducing the uncertainty provoked by revenue shocks is to establish bureaucratic procedures that ensure that first priority in allocation of revenues is given to servicing of government debt. In the simplest case this could be established in the form of a rule requiring debt repayment to receive priority over other expenditure items. A complementary possibility would be to delegate responsibility for managing government revenue collection. The most common
mechanism in Early Modern Europe for achieving this goal was to grant government creditors the right to directly collect specific taxes. As will be described in Chapter 4, after 1688 in Great Britain a number of new institutional steps were taken to ensure that debt repayments received priority allocation of revenues. My argument here could also be extended to other forms of bureaucratic delegation, such as those used in eighteenth century France where it was common for the monarchy to borrow indirectly through royal officials.

The potential problem with delegation as a solution to commitment problems is that, in practice a decision to delegate can be reversed. It has been recognized at least since Weingast and Moran (1983) that political principals can use the implicit or explicit threat of revising an agency’s statutes in order to influence bureaucratic behavior. Drawing on the sizeable political economy literature on bureaucratic delegation, we can make three predictions about the impact of a decision to delegate management of revenues. First, if owners of capital lack either majority control of at least one representative assembly, or if they otherwise lack the power to veto a decision to reverse delegation, then bureaucratic delegation will be meaningless, because landowners will find it easy to override any decision made by a nominally independent bureaucratic authority. Second, if owners of capital control all veto points in a political system, then bureaucratic delegation will be superfluous. Capitalists will have the power to block any decision to override a bureaucratic authority, but they would also have the power to protect themselves against opportunistic changes in taxation even in the absence of delegation. Following the logic of this argument, then, the principal circumstance under which bureaucratic

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delegation can make a difference is if owners of capital lack the power to set tax policy unilaterally, but they do have the power to block any attempts to override bureaucratic decisions.

6. Summary

Representative political institutions may improve a government’s ability to credibly commit through several different mechanisms. This chapter has used a formal model of legislative bargaining to provide support for my three main arguments. I first demonstrated that if capital owners are in the minority, then party formation can lead to credible commitment, but only if players bargain over multiple issues. In addition, one can expect the perceived credibility of taxation or borrowing to vary according to the partisan composition of government. Both of these observable implications will be considered in detail in subsequent chapters. I next showed that constitutional checks and balances will have little effect on credibility unless there is some mechanism ensuring that capital owners control a veto point. This helps support the argument that multiple veto points may in many cases be insufficient to ensure credible commitment. Finally, I developed my argument about bureaucratic delegation, suggesting that it will only improve credibility if capital owners have the political authority to block any attempt to override bureaucratic decisions. This too is an empirical prediction that is considered in subsequent chapters.