Political Conflict over Time

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Abstract

We study a model of electoral competition in which politicians must decide whether to initiate the provision of some public good and, afterwards, how much of the public good to supply. The model illuminates how a project's implementation affects elections and, conversely, how electoral considerations influence decisions about implementation. Under well-defined conditions, politicians will either implement projects that they do not like or delay projects that, absent electoral concerns, they would support. The model further reveals how the perceived benefits of holding office can impede the production of public goods about which there is broad consensus. And depending on facts about the program's structure and the electoral landscape, a policy's implementation can either mitigate or exacerbate political conflict.

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Whether politicians disagree plainly depends upon what they are discussing. Observed levels of political conflict, as a result, crucially depend upon the contents of a policy agenda. And depending upon their stages of development, the initiatives that constitute that agenda can elicit very different political responses. Contemporary decisions about whether to (de)regulate a labor market, introduce a framework for public health insurance, launch a war, or build a wall to secure the border, to name just a few examples, constrain the policy options that are available to tomorrow's incumbents and reconstitute the terms of subsequent political conflict. Consequently, programs that are up and running regularly stimulate altogether different levels of partisan disagreement than proposals for new ones.

For all the scholarly attention devoted to the topic of partisan polarization, however, we still know very little about how the evolving subjects of policy deliberation interact with features of the electoral landscape in order to foment or allay political conflict. Empirical studies of political polarization tend to abstract away from the composition of a political agenda (for reviews, see McCarty (2011); Schaffner (2011)). Likewise, existing models of candidate polarization neither recognize the differences between initial and ongoing investments into a policy initiative nor evaluate the downstream electoral consequences of contemporary partisan disagreement (for summaries of standard approaches to studying political competition, see Roemer (2009); Gehlbach (2013)).

To clarify the dynamic relationships between an evolving political agenda and political conflict, we study a model of electoral competition in which politicians decide whether to start a new political program; and then, once established, how much to invest in the program. These long-run projects affect political actors payoffs both directly (in terms of the costs and benefits they create) and indirectly (by affecting the electorates preferences over who manages the program once it is established). Forward-looking, strategic actors evaluate both effects when deciding whether or not to support new projects.

Thus, in a variety of ways, politicians' strategic decisions about whether to implement a project can deviate from naive assessments of a project's direct costs and benefits. The establishment of a project can yield electoral effects that can benefit either the politician who supports the project or one who opposes it. If those effects are sufficiently important,

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an office-holder who dislikes a project may nonetheless implement it in order to negate an electoral advantage presently enjoyed by the opposition. Likewise, an office-holder who likes a project may postpone or even abandon it in order to prolong an existing electoral advantage.

We also find that concerns about the benefits of holding public office—understood either as rents or policy gains on purely ideological issues—can disrupt negotiations over a public good, even when both political actors would otherwise support its provision. When the perceived benefits of holding office are sufficiently high, we find, support by one political actor unavoidably stimulates opposition by the other, with consequences that are detrimental to the voter. In such situations, at least one party either supports a project that the voter opposes or opposes a project that the voter supports.

The paper proceeds as follows. The first section summarizes the relevant empirical and theoretical literatures. Section 2 introduces the model, identifies instances when politicians behave in ways that deviate from their direct policy preferences, and offers a series of illustrative examples from contemporary U.S. and European politics. Section 3 defines ex-ante and ex-post political conflict and characterizes the interactions between the two. The final section concludes. The online appendices contain proofs of propositions and graphical illustrations of politicians' equilibrium behaviors across the parameter space.

1 Literature Review

This paper draws upon a range of empirical and theoretical literatures on party polarization, issue salience, issue ownership, and candidate divergence. Each in their own way, these literatures recognize the relevance of past political choices for contemporary political conflict. None, however, characterizes how an endogenously chosen and structurally changing policy initiative stimulates varying levels of partisan conflict over time.

To start, consider the massive body of empirical scholarship that measures and tracks polarization between the two major parties in the United States. In addition to documenting the fact of rising polarization over the last half century, this literature also posits income

inequality, changes in party structures, and money in politics as its causes (see, for example, McCarty et al. (2016); Theriault (2008); Sinclair (2006)). But as McCarty (2011, p. 91) points out, "very little is known about the dynamics of how issues map (or not) into the major dimensions of conflict over time." To be sure, scholars working within this research tradition recognize that estimates of politicians' ideological differences, as measured by roll call votes, critically depend upon the contents of the legislative agenda (Poole 2005). For the most part, though, these scholars treat the agenda as a nuisance parameter. Though a handful of studies leverage information about the distribution of estimated bill-specific cutpoints in order to characterize historical changes in the legislative agenda (see, e.g. Poole and Rosenthal (1993)), none offers a theoretically informed explanation of the strategic motivations that drive these changes or their consequences for political polarization.

Other empirical work assesses the salience of different policy considerations in different elections (see, e.g., Ansolabehere et al. (2006)). Whereas voters may choose between candidates on the basis of their education policy positions in one election, this literature points out, they may focus more on their health policy positions in another. Here again, though, scholars treat the agenda itself as something to be controlled for rather than explained. Given the clear endogeneity concerns at hand, it is not surprising that researchers working within this domain have had a difficult time recovering a defensible identification strategy. Just as important, though, none of these studies explains how contemporary policy debates reflect past political decisions to either create new programs or invest in existing ones.

Lastly, there is a burgeoning body of empirical research on "issue ownership," which suggests that voters rather instinctively trust one party or another to "handle" certain policy domains marked by widespread consensus (Egan 2013; Petrocik 1996; Budge and Farlie 1983). When elections turn to issues ostensibly "owned" by a given party, this literature posits, then that party retains clear advantages in the contest. Moreover, scholars have shown, issue ownership has important implications for how (and how much) each of the parties talks about different policies both in an electoral contest and while governing. How does one party come to enjoy this advantage? And what might the opposing party do to either seize or dismantle it? For explanations, scholars tend to look to changes in either the

contents of public opinion or the organization of key interest groups within the Democratic or Republican parties (see, e.g., Karol (2009)). These scholars have considerably less to say about the strategic policymaking efforts of one party to mitigate the electoral advantages enjoyed by another's issue ownership. Indeed, instances when one party intrudes into an issue domain owned by another—a phenomenon Patrick Egan calls "issue trespassing"—appear altogether idiosyncratic and, for the most part, ill-conceived (2013, 149-55).

Informing these empirical literatures are ample theories of political conflict that modify the standard spatial model to explain candidate and platform divergence. Contributing factors include policy motivation (e.g., Calvert 1985; Londregan and Romer 1993; Osborne and Slivinski 1996; Besley and Coate 1997; Martinelli 2001)), entry deterrence (e.g., Palfrey 1984; Callander 2005), incomplete information among voters or candidates (e.g., Castanheira 2003; Bernhardt et al. 2007; Callander 2008), rent-seeking (e.g., Van Weelden 2013), and differential candidate valence (e.g., Groseclose 2001; Krasa and Polborn 2010b, 2012; Bierbrauer and Boyer 2013). None of this work, however, recognizes the electoral implications of contemporary policy decisions, which, we show, can induce conflict even on projects whose direct payoffs are positive for both parties.[1]

Callander and Raiha (2017) develop a dynamic model in which an incumbent chooses both the type and the amount of infrastructure investment.[2] As in our model, electoral considerations play a central role in the analysis, inducing the incumbent to invest in wasteful types of projects (that is, ones that are not used by anybody in equilibrium) and in amounts that are socially suboptimal. Unlike our model, however, Callander and Raiha find that polarization between the two parties improves efficiency, and electoral considerations always

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[1]Somewhat related, Krasa and Polborn (2014) present a model of electoral competition that supports ideological spillovers to economic policy choices. Their framework and results, however, differ markedly from our own.

[2]See also Callander and Martin (2017). A related theoretical literature analyzes the adoption of reforms that benefit some voters and harm others, often under conditions of uncertainty (Fernandez and Rodrik 1991; Coate and Morris 1999).

reduce spending on useful infrastructure. By contrast, the effects of polarization and electoral considerations on implementation decisions are ambiguous in our model, and voters are more likely to suffer from projects that were implemented for strategic reasons.

Most relevant, perhaps, is Besley and Coate (1998), which presents a dynamic citizen-candidate model in which first-period policy choices affect the second-period electorate, for example, by lifting some voters out of poverty and into the middle class so that henceforth they oppose redistribution. In this setting, a first period incumbent who is worried about the next electorate ceasing to be majority-poor might forego the opportunity to implement such a policy. Since the identity of the voter is fixed in our model, none of our results is based on the incumbent's desire to alter the composition of a future electorate. Furthermore, Besley and Coate do not evaluate projects that require management after implementation. For them, short-term policy choices regarding a policy's implementation and execution occur concurrently. In our model, we relax this assumption and allow opinions about a public good to vary over the course of its lifespan; a fact, we explain below, that has important implications for both the electoral landscape and the policy choices that politicians make.

2   The Model

We analyze a T-period model in which players' payoffs depend on public goods and private consumption. A voter of type θ receives policy utility $u_\theta^0(c,g) = c + \theta g$ in each period, where g is the quantity of the public good and c is private consumption in that period. Thus, $\theta \geq 0$ measures how much a voter values one unit of public good consumption relative to private consumption. The voter's type is denoted by θ_V, and the discount factor between periods is denoted by $\delta \in [0,1]$.

Public good provisions depend on decisions made by the office-holder in each period. If a public project has not yet been started, the office-holder chooses whether or not to *initiate* one. Initiation requires a setup cost of K per citizen, and no benefits accrue in that period.[3]

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[3]We have in mind a project that takes some time to build or launch, which delays the public good's provision. However, this assumption can be relaxed without qualitatively

In each period thereafter, the office-holder chooses how much additional money to allocate to the project, denoted by I on a per-citizen basis.

Formally, the office-holder cannot eliminate the project from the policy landscape and thereby return to the implementation stage of the game. Once a project has been implemented, the only decision concerns the amount of investment to be made in the operational project, I. Depending on this amount, the project then supplies $g = f(I)$ units of the public good, where $f' \geq 0$ and $f'' \leq 0$. For a variety of reasons, this simplifying assumption adheres well to observed empirical phenomena. Notice, for starters, that the model permits the office-holder to support an implemented project at any amount she likes. Nothing about the current set-up precludes her from completely defunding an existing project. Moreover, as soon as one recognizes that the initial investment K covers not only administrative and operational costs, but also the acquisition of expertise about how a project might work, it becomes difficult to imagine how an office-holder could conceivably "destroy" a program, once and for all. So while a substantial empirical literature demonstrates that government programs do not live in perpetuity (see, for example, (Berry et al. 2010; Patashnik 2008; Maltzman and Shipan 2008; Pierson 2005)), the demise of an existing project does not return the government to a prior state that proscribes any subsequent incumbent from producing public goods with the project without paying the full implementation costs.

In each period, two candidates L and H (for low and high demanding types, respectively) compete in an election. Candidates' preferences resemble those of voters, with type parameters $\theta_L \leq \theta_V \leq \theta_H$, where at least one of these inequalities is strict. In terms of a project's *direct* utility, therefore, high demanding types prefer more of the public good than the voter; and the voter, in turn, prefers more of the public good than low demanding types.[4]

Unlike voters, candidates receive an additional payoff of $\psi \geq 0$ in each period that they or

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affecting our results below.

[4]Starting with only two parties, our model does not allow additional parties to form and enter an electoral competition. Future iterations may wish to evaluate the relevance of endogenous candidate entry for candidates' decisions and the incidence of political conflict.

their party win the election. The payoff $\psi > 0$ can be understood as stemming from either the personal benefits of holding office ("ego rents") or the additional benefits associated with the office-holder's ability to advance a strictly ideological—that is, nonprogrammatic—agenda ("ideology rents").[5] Candidates cannot commit to a policy position ex-ante. Upon being elected, therefore, an office-holder either chooses to initiate the project or, if the project is already underway, selects I to maximize her own utility.

In addition to the voters' utility from public good provision and private consumption, there is an election-specific shock v_t, which can be interpreted as the additional utility from the low demanding type holding office due to other issues that are salient at time t. (The additional utility from the high demanding type is normalized to zero.) Thus, $v_t > 0$ corresponds to states of the world where, all project-related matters equal, the voter prefers L; and $v_t < 0$ indicates a state of the world in which, all else equal, the voter prefers H. We assume that v_t is drawn i.i.d. across time according to a distribution with cumulative distribution function $\Phi(\cdot)$, and a probability density function that is strictly positive around 0.

In each period $t = 1, \ldots, T$ the following sequence of events takes place.

1. The election shock v_t is realized, and the voter elects one of the two candidates.

2. If the project has not yet been started, then the winning candidate decides whether or not to initiate the project, which costs each voter an amount K for setup costs.

3. If the project was started in a previous period, then the winning candidate chooses I, the amount each voter is taxed for public good provision in that period, and a quantity $f(I)$ of the public good is provided.

We assume that all agents' utility is equal to the sum of their (discounted) period utilities.

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[5]Note that the latter benefit would also accrue if the incumbent is term-limited. In this case, ψ can be interpreted as the incumbent's ideological benefit from being succeeded by a member of her own party, rather than the opposition.

Proposition 1 shows that subgame perfect equilibria always exist and payoffs are generically unique, i.e. subgame perfect equilibria are unique except for the case in which the voter is exactly indifferent between the candidates.[6]

Proposition 1. *There exist subgame perfect equilibria in pure strategies. Furthermore, for all subgame perfect equilibria (pure or mixed) starting at the beginning of each period t, expected payoffs to the voters are the same. The expected payoffs for candidates are the same except for the single electoral shock realization at which the voter is indifferent between the candidates.*

In the following, we will focus on the case where $T = 3$, which allows us to derive key effects in the simplest-possible framework.[7]

3   Equilibrium Analysis

Our analysis proceeds in two steps. First, we identify the optimal level of investment in a project that is up and running, and then we characterize the decision about whether to initiate a project. So doing, we identify a series of cases in which electoral considerations cause

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[6]If the shock is such that the voter is indifferent between candidates, candidates' payoffs depend on how the voter breaks the indifference, whether by randomization or by selecting one candidate with probability one.

[7]For any finite number of periods T, the equilibrium can be found through backwards induction, and this equilibrium is (generically) unique. In contrast, in an infinite period setup, a large number of subgame-perfect equilibria arise because of repeated game effects that do not align with the main interest of this paper. One way to exclude these reward-and-punishment equilibria is to focus on Markov perfect equilibria in which the voter's election decision only depends on whether the project has already been implemented and on the electoral shock in period t. If we restrict our attention to Markov perfect equilibria, we can show that the main results derived for the three-period model go through qualitatively unchanged.

politicians to behave in ways that do not accord with their immediate policy preferences. Illustrative examples are provided throughout the discussion that follows.

3.1 Investment Decisions Post-Implementation

If the project was already implemented in a previous period, then the office-holder of type θ_P chooses her optimal level of public good provision by solving

$$\max_I m - I + \theta_P f(I). \tag{1}$$

Let I_L and I_H be the solutions of this optimization problem for L and H, respectively. In an interior solution, the first-order condition of (1) is $\theta_P f'(I_P) = 1$.[8]

If investments are strictly positive and $f'' < 0$, then, from the voter's perspective, L under-invests and H over-invests in the project. Formally, $I_L < I_V < I_H$, where I_V solves (1) for $\theta_P = \theta_V$.

The voter understands that, if party P wins, then public good investments will be I_P. The voter is thus indifferent between the two candidates if

$$v^* + m + \theta_V f(I_L) - I_L = m + \theta_V f(I_H) - I_H,$$

which implies

$$v^* = (\theta_V f(I_H) - I_H) - (\theta_V f(I_L) - I_L). \tag{2}$$

We denote the post-implementation valence cutoff v^* without a time subscript since it is constant across every period after implementation. If $v < v^*$, then H wins the election; if $v > v^*$, then L wins. The first and second terms in brackets in (2) are the voter's utility if H or L, respectively, choose the amount of public good expenditures, so that v^* is equal to the voter's net policy benefit from having L rather than H manage the public good. Thus,

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[8]If, instead, $\theta_P f'(0) \leq 1$ then $I_P = 0$. If, in addition, $f(0) > 0$ then a project generates payoffs without incurring any additional maintenance expenses.

for H to win the election when $v^* > 0$, she needs an electoral shock that is at least as large as L's policy advantage. For $v^* < 0$, the same holds true for L.[9]

Once the project is implemented, the payoffs are the same in all subsequent periods. Let the expected post-implementation policy payoff for type θ be denoted by

$$\Delta(\theta) = [1 - \Phi(v^*)](\theta f(I_L) - I_L) + \Phi(v^*)(\theta f(I_H) - I_H). \tag{3}$$

The expected payoffs for candidate L, candidate H, and the voter, respectively, are

$$W_L = \Delta(\theta_L) + \psi[1 - \Phi(v^*)], \quad W_H = \Delta(\theta_H) + \psi\Phi(v^*), \quad W_V = \Delta(\theta_V) + \int_{v^*}^{\infty} v\, d\Phi(v), \tag{4}$$

where the voter's payoff includes the expected valence payoff after implementation. Clearly, there is also a valence payoff in periods when the project is not (yet) implemented. Consequently, only the expected valence difference is relevant for welfare comparisons for the voter, an issue we return to below.

3.2 The Implementation Decision

We now analyze implementation decisions in periods 1 and 2.We forego an exhaustive accounting of Proposition 1's essentially unique equilibrium for all parameter combinations, many of which involve scenarios that are not particularly interesting. Obviously, there are cases when each politician will behave according to type, with L opting not to implement the project and H choosing to do so. Likewise, there clearly are projects that are so bad that neither L nor H is willing to implement them. We therefore focus on the more instructive cases in which the electoral consequences of implementation cause at least one of the

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[9]In our model, a post-implementation advantage is generated by preference differences between parties, and consequently the voter (generically) prefers one of the parties for its handling of the project. Alternatively, such an advantage could derive from a party's *capabilities*, along the lines of Krasa and Polborn (2010b, 2014), or the available authority vested in a political office to perform specific tasks, as in Howell and Wolton (2018).

politicians to behave in ways that deviate from her direct policy preferences.

3.2.1 Seizing an Electoral Advantage, Enduring an Electoral Loss

Because of its electoral consequences, the decision to implement a project does not always follow straightforwardly from a politician's views about its merits. In some instances, a politician who opposes a project will nonetheless see fit to implement it. In others, a politician will abide her policy preferences in only the most exceptional of circumstances.

Let's begin with the first scenario, wherein L implements a project that she intrinsically does not like, but that provides her with an electoral advantage post-implementation because the voter trusts her management of the project more than her opponent's. Notice that L does not benefit directly from the project if the discounted expected payoff after implementation, $(\delta + \delta^2)\Delta(\theta_L)$, is strictly less than the project's implementation cost K, i.e., if $\Delta(\theta_L) < K/(\delta+\delta^2)$. Nonetheless, candidate L would implement the project if it provided a sufficiently large electoral advantage ex-post, i.e., if the cutoff valence $v^* < 0$ (recall that L wins if $v > v^*$). Candidate L receives this electoral advantage if the voter strictly prefers that L handle the project.

In particular, let θ^* be the voter type who is indifferent between the politician handling the project in the last period, i.e., $\theta^* f(I_L) - I_L = \theta^* f(I_H) - I_H$. Solving for θ^* yields

$$\theta^* = \frac{I_L - I_H}{f(I_L) - f(I_H)}. \tag{5}$$

In order for the voter to prefer that L handle the project, it must be the case that $\theta_V < \theta^*$. If the electoral advantage is sufficiently important, L will initiate the project. This is shown formally in Proposition 2, which, for simplicity, focuses on a two-period model (i.e., the subgame starting in period 2, given that the project was not implemented in period 1). Numerical examples of this and subsequent propositions, which illustrate the parameter regions for which different types of equilibrium behaviors arise, can be found in the Appendix.

Proposition 2. *Consider the subgame that starts in period 2 when no implementation occurred in period 1. Suppose that the voter prefers that type L runs the project, i.e., $\theta_V < \theta^*$,*

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where θ^* is given by (5). Further, suppose that type H likes the project, but type L dislikes it, i.e., $\Delta(\theta_L) < K/\delta < \Delta(\theta_H)$. Then there exist $0 < \bar\psi_1 < \bar\psi_2$ such that:

1. *Only H implements the project if $\psi < \bar\psi_1$.*

2. *Both H and L implement the project if $\bar\psi_1 < \psi < \bar\psi_2$.*

3. *Only L implements the project if $\psi > \bar\psi_2$.*

Furthermore, there exists $\bar\theta > \theta_L$ such that the voter is worse off if the project is implemented when $\theta_V < \bar\theta$.

If the voter's preferences are close to those of candidate L, then the voter would prefer that the project not be undertaken. In addition to obtaining the project with a lower valuation, the voter also loses in expectation because after implementation candidates with negative valence may get elected. (Recall that the project gives an ex-post electoral advantage to L, and hence a negative valence candidate can win the election.)

Contemporary politics furnish numerous examples of politicians behaving in ways that are consistent with the cases identified in Proposition 2. For the first, when a low demanding type implements a project for electoral reasons even though she directly dislikes it and/or a high-demanding type chooses to forgo a project (i.e., cases 2 and 3 of the proposition), consider the German government's reform program dubbed "Agenda 2010," which was implemented by a coalition government of the left-wing Social Democratic Party (SPD) and Green Party under Gerhard Schröder. Agenda 2010 included "drastic cuts to welfare budgets, tax breaks to workers and corporations, weakening the then-stricter labor laws to allow easier hiring and firing of employees [and] changing the rules to allow for more part-time and temporary work." Not surprisingly, "[t]he reform measures were warmly welcomed by businesses and conservative politicians but loathed by the left and Germany's labor unions."[10]

Why would a liberal coalition—particularly one that historically showed little appetite for deregulatory labor market reforms—do such thing? Part of the answer may have involved a

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[10] "German Issues in a Nutshell: 'Agenda 2010,'" `https://www.dw.com/en/german-issues-in-a-nutshell-agenda-2010/a-38789461`.

concerted effort to undermine even more drastic cuts to workers' rights and a general realignment of party platforms. Our model, however, suggests another possibility, which relates to changes in the electoral landscape wrought by this neoliberal policy's adoption. With employment contracts deregulated, German workers became increasingly vulnerable during economic recessions, making the insurance function of the government more important. This singular change to the policy landscape yielded clear electoral advantages to liberal parties that promised relief to voters' emergent economic anxieties. At a time when the viability of a left-wing coalition government was being called into question, therefore, the SPD and Green Party opted to embrace Agenda 2010 and thereby shift the terms of policy debate in ways that played to their distinct electoral advantage.

Before the reform's adoption in 2003, the SPD/Green Party government barely won the 2002 Bundestag election only because the competition was saddled with significant liabilities (Pulzer 2003). The opposition candidate for Chancellor, Edmund Stoiber, was both an exceptionally inept communicator[11] and widely suspected of supporting the U.S.-led Iraq war, a wildly unpopular position in Germany at the time. Immediately after the election, Stoiber was replaced by Angela Merkel, and the popularity of the conservative block (CDU/CSU/FDP) soared to 54 percent, as compared to 39 percent for the governing SPD and Green parties.[12] Subsequently, Schröder set to work on enacting the various elements of Agenda 2010. In the following election in September 2005, SPD and Green Party received a combined 42.3 percent of the popular vote, while the conservative block received 45 percent.[13] Though still a loss, the SPD/Green coalition avoided the rout predicted by earlier opinion polls. And because the conservative block missed an outright majority of seats in

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[11]See, for example, Stoiber's infamous Transrapid speech: `https://www.youtube.com/watch?v=bMUxRA4B9GE`.

[12]Forschungsgruppe Wahlen, Politbarometer. Data from all opinion polls (commissioned by ZDF, one of the major German TV networks) are available at: `http://www.forschungsgruppe.de/Umfragen/Politbarometer/Langzeitentwicklung_-_Themen_im_Ueberblick/Politik_I/1_Projektion_1.xlsx`.

[13]Interestingly, SPD and Green losses were more than offset by gains for the Communists.

the Bundestag, SPD remained in power, albeit as a partner with CDU and CSU in a Grand Coalition. Overall, from an electoral standpoint, Agenda 2010 proved to be a tactical success for Schröder.[14]

We now turn to an example for case 1 of Proposition 2, which identifies when a politician will undertake a project knowing full well that its adoption will degrade her future electoral prospects. Returning to the model, let us now suppose that H likes the project, i.e., $\Delta(\theta_H) > K/(\delta + \delta^2)$. The willingness of H to implement the project depends on the relative size of the electoral disadvantage and the project's direct benefit. If electoral concerns dominate, i.e., if ψ is sufficiently large, then H will not implement the project, while the reverse is true if ψ is smaller. In other words, H is willing to "expend political capital" and implement a project if and only if her direct project benefits outweigh her loss from the subsequent electoral disadvantage.

Barack Obama's decision to enact the Affordable Care Act in 2010 provides an illustrative example. Before he assumed office, nearly every recent Democratic president had sought to reform the nation's health care system. And until Obama enacted the ACA, every one had failed. Expanding health care benefits was a longstanding and significant priority for the Democratic Party. Unfortunately for its members, however, powerful interest groups like the American Medical Association, the American Hospital Association, and the American Association for Retired People, as well as insurance companies, doctors associations, and the

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While our model has two exogenously given parties, and the electoral effects are about redistributing votes between them, in a multi-party setting, projects such as Agenda 2010 may also affect vote allocations *within* each ideological camp.

[14]It is also interesting to note that the conservative (CDU/CSU/FDP) government that was in charge until fall of 1998 never attempted to implement a similar structural labor market reform project, even though unemployment rates ranged between 8 and 10 percent throughout the second half of the 1990s. Such behavior follows the logic of case 3 of Proposition 2, wherein a high demanding incumbent chooses to forego implementation for electoral reasons.

pharmaceutical industry consistently stood in the way of any substantial reform, and stood ready to punish anyone who tried (Hacker 1999; Starr 2013; Steinmo and Watts 1995).

In 2009, however, Obama saw an opportunity to break through this impasse, and he took it, knowing full well that his party would suffer collateral damage. As he explained in a joint session of Congress in the fall of 2009, when debate over the ACA was in full bloom: "I understand that the politically safe move would be to kick the can further down the road—to defer reform one more year, or one more election, or one more term. But that is not what the moment calls for. That's not what we came here to do. We did not come to fear the future. We came here to shape it."[15] Four months later, Obama signed the ACA into law. And sure enough, in the years that followed, "bashing Obamacare became a winning Republican message—an indictment of its polarizing namesake, of big-spending Democrats and of the boogeyman of creeping socialism all rolled into one."[16] In the following mid-term elections, Republicans regained control of both the House and Senate. And though Obama would win re-election in 2012, four years later Republicans secured more elected offices at the state and federal levels of government than at any time since the 1920s.[17]. Obama, however, showed no signs of regret. For him, the immediate policy benefits of enacting ACA more than compensated for the electoral disadvantage that he and his party would consequently endure.

Notice that Proposition 2 does not exclude the possibility that in the first period both H

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[15]Barack Obama, "Health Care Address to Congress." *The New York Times*, September 9, 2009, http://www.nytimes.com/2009/09/10/us/politics/10obama.text.html.

[16]Robert Draper, "Obama the Care Operation." *New York Times Magazine*, February 19, 2017, 35.

[17] Opinion polls routinely show that the public trusts Democrats more than Republicans in handling health care. Consistent with the model, however, these differences attenuated markedly immediately after the enactment of the ACA. See, for example, Pew Research Center, "Public Dissatisfaction with Washington Weighs on the GOP." April 17, 2017, pp. 50-51.

and L will implement the project even when the voter dislikes it. Thus, electoral concerns in our model may yield a surprising non-monotonicity in which *both* candidates go against the wishes of the voter regarding project implementation, even though one candidate has a stronger direct preference for the project than the voter, and the other candidate has a weaker one. The non-monotonicity can take one of two forms: both candidates may implement a project opposed by the voter; and alternatively, both candidates may refuse to implement a project that the voter supports.

Proposition 3. *There exist model parameters such that both candidates implement the project even though the voter strictly prefers that the project is not implemented. In this case, there must be ex-post conflict about the funding level, i.e., $I_H \neq I_L$ and the voter strictly prefers that L handles the project ex-post, i.e., $v^* < 0$.*

Similarly, both candidates may not implement the project even when the voter strictly prefers it to be implemented. In this case there must also be ex-post conflict about the funding level, i.e., $I_H \neq I_L$.

How does the non-monotonicity of Proposition 3 arise in our thoroughly spatial model? Consider the second case, in which both candidates oppose a project even though the voter supports it. Suppose, for example, that after implementation the optimal level of investment I from the voter's point of view is zero; and, further, suppose that the voter prefers that L maintain the project after implementation. Knowing this, H must compare the direct policy benefits against the indirect electoral losses of a project's implementation. For intermediate values of ψ and sufficiently large policy disagreements, there are instances when the direct gains for H associated with adopting a project do not outweigh the relatively large electoral disadvantage that follows. Because the policy returns are not symmetric, however, L may choose the same action as H. When the relatively large direct losses for L associated with implementing a project overwhelm the relatively small gains in electoral advantage, L will also pass on the project. As a result, neither candidate implements the policy even though the voter supports it.

Note that the example provided in the proof of Proposition 3 does not require that high types care more about reelection than low types. As always, we assume that ψ is the same

for both. Furthermore, we should emphasize that Proposition 3 requires that politicians care about both policy and reelection. This result could never arise in a Downsian framework in which both candidates care exclusively about being elected and therefore abide the voter's wishes (here, by implementing the project). Nor could this result arise in a citizen-candidate model in which candidates lack office motivation, belong to one of the two groups of voters, and simply pick their voter group's ideal policy, as in Besley and Coate (1998).

3.2.2 Taking an Issue off the Table, Keeping an Issue Alive

Rather than tilt the electoral landscape to one party's distinct advantage, the adoption of a project may level it. Here again, though, candidates may behave counter to type. A high demanding politician may choose not to implement a project, whereas a low demanding type may choose to proceed with one. Each does so, however, not so much to secure an electoral advantage tomorrow but rather to prolong its current advantage or to short-circuit its present disadvantage.

To identify circumstances under which such behaviors occur, we first must review the implementation decision in period 2. Specifically, we are interested in the case that, in period 2, only a high demanding incumbent would implement the project. This case requires

$$\Delta(\theta_H) > \frac{K}{\delta} - \psi\left(\Phi(v^*) - \Phi(0)\right), \ \text{ and } \ \Delta(\theta_L) < \frac{K}{\delta} + \psi\left(\Phi(v^*) - \Phi(0)\right). \tag{6}$$

The first inequality stipulates that H's direct expected payoff in the last period is greater than the implementation cost and the value of her electoral disadvantage in period 3. Note that $\Phi(0) - \Phi(v^*)$ is the extent to which H's reelection probability decreases, relative to the case when the project is not implemented. Of course, if $\Phi(0) - \Phi(v^*) < 0$, then H secures an electoral advantage in period 3. The second inequality in (6) states that implementation will not occur if L is the incumbent in period 2.

If (6) holds, the identity of the period 2 officeholder matters for the voter because only H implements the project. The voter in the period 2 election is indifferent between the

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candidates at a valence $\hat{v}_2$ such that $-K + \delta W_V = \hat{v}_2 + \delta \int_0^\infty v \, d\Phi(v)$. Thus,

$$\hat{v}_2 = -K + \delta \Delta(\theta_V) - \delta \int_0^{v^*} v \, d\Phi(v). \tag{7}$$

Note that $\int_0^{v^*} v \, d\Phi(v) \geq 0$ for all v^*. (If $v^* < 0$, then the integrand is negative, but the lower integration bound, 0, is larger than the upper bound v^*). This is interesting as it implies that, if the voter's expected payoff from the project is exactly as large as the cost (i.e., the first two terms add to zero) and $v_2 = 0$, then the voter *strictly* prefers the candidate who will not implement the project. Why? If the project is implemented, then, in period 3, the voter sometimes (for values of v_3 between 0 and v^*) chooses the candidate with the lower valence because she provides a higher project-related utility. In contrast, without implementation, the higher valence candidate always wins, so that project implementation leads to a reduction in expected valence. Consequently, candidate H in period 2 must be sufficiently good to compensate for this effect in order to be elected.

We now turn to the decision in period 1. Under which conditions would L implement the project? The easiest way to construct such an example is to assume a project where no ex-post investment is needed (so $v^* = 0$) and the project's implementation has no effect on expected valence. To further simplify matters, let us normalize the project output to 1.

To generate an electoral advantage for H in period 2 when the project has not yet been implemented, the voter must prefer implementation and the low type must not implement the project in period 2, which will be true so long as $\theta_L = 0$. To ensure the voter prefers implementation, let $\theta_V = 5$ and $K = 3$, and let $\delta = 1$ (i.e., no discounting). Thus, electing H in period 2 implements the project (because $\theta_H \geq \theta_V$), which provides the voter with a net payoff of $5 \times 1 - 3 = 2$, so $\hat{v}_2 = 2$. On the other hand, if L implements the project in period 1, then $\hat{v}_2 = 0$, so that the increase in type L's period 2 reelection probability is $(1 - \Phi(0)) - (1 - \Phi(2)) = \Phi(2) - \Phi(0)$. A type L incumbent values this electoral effect at $[\Phi(2) - \Phi(0)]\psi$, and if this quantity is larger than the cost of implementation ($K = 3$), a period 1 incumbent of type L will implement the project.

Expanding on this numerical example, we can further see that a high demanding incum-

bent may not implement the project in the first period in order to safeguard the issue's electoral relevance for the next election. For this to happen, H must value the electoral effect more than the expected loss in project payoff. If H does not implement the project in period 1, there are two possible events in period 2: with probability $\Phi(2)$, H wins the election, implements the project and thereby foregoes only one period of project payoff; with the complementary probability, L wins the period 2 election so that H loses $2\theta_H$, but of course saves the cost K. Therefore, for H to forego implementing the project in period 1, it has to be true that

$$[\Phi(2) - \Phi(0)]\psi \geq \Phi(2)\theta_H + (1 - \Phi(2))[2\theta_H - K]. \tag{8}$$

For example, if $\theta_H = 6$, $\Phi(0) = 0.5$ and $\Phi(2) = 0.8$, (8) is satisfied for all $\psi \geq 22$.

Proposition 4 states these results formally.

Proposition 4. *Suppose that voters do not care who manages the project after implementation, i.e., $v^* = 0$. Further, suppose that $\Delta(\theta_H) > K/\delta$, while $\Delta(\theta_L) < K/\delta$, i.e., only H would implement the project in period 2. Let $\hat{v}_2$, given by (7), be the net discounted payoff for the voter if the project is implemented in period 2. Then, if $\hat{v}_2 > 0$ there exists $\bar{\psi}$ such that H implements the project in period 1 if $\psi < \bar{\psi}$, and delays implementation to period 2 if $\psi > \bar{\psi}$.*

Proposition 4 describes a situation in which the voter supports a project that only H, on purely policy grounds, is willing to implement. Consequently, H retains an electoral advantage in period 2 if the project is not yet implemented. Should winning be sufficiently important (ψ large), then we can expect H to bypass the opportunity to implement the program in period 1. So doing, she suffers an immediate policy loss but recovers a potentially larger electoral gain.

During his first two years in office, Donald Trump's persistent, and largely ineffectual, efforts to secure funding for a wall along the U.S. southern border with Mexico provide an illustrative example of a high-demanding politician forestalling implementation of a project he ostensibly supports. There are, of course, a bevy of potential explanations why Trump

failed to deliver on this defining promise of his 2016 presidential campaign. His lack of discipline, intra-party and inter-party divisions, and the (de-)merits of the policy itself all may have been contributing factors. Our model, though, suggests yet another potential reason: as long as the national conversation fixated on whether to build a wall, Trump believed that he stood to benefit electorally; but once the wall was erected, and deliberations turned to the more mundane matter of maintenance, Trump's expected electoral advantage would promptly vanish. And having formally announced his 2020 re-election bid on the day of his inauguration in 2017,[18] there is ample reason to believe that Trump put greater weight on electoral considerations than he did on any particular policy, very much including border security.

For Trump, the wall served a variety of political purposes. Materially, it addressed a long-standing problem of border security; and metaphorically, it spoke to Americans' deep anxieties and prejudices surrounding immigration. Though its registered popularity varied across opinion polls,[19] the wall clearly enjoyed substantial support among the president's electoral base. Reflecting on his political rallies, the president noted, "You know, if it gets a little boring, if I see people starting to sort of, maybe thinking about leaving, I can sort of tell the audience, I just say, We will build the wall!' and they go nuts.[20] It was a device he would employ not only during his own run for office, but also while governing and during the 2018 midterm elections. Rather than extol the demonstrable improvements in the domestic economy, Trump spent the fall of 2018 railing against a small caravan of Central American

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[18]Dave Levinthal, "Donald Trump Created a Permanent Presidential Campaign. Here's How." The Center for Public Integrity. February 18, 2019.

[19]For example, compare: "Immigration Update: Voters Don't Think Government's Doing Enough to Stop Illegal Immigration." *Rasmussen Reports*. January 11, 2019; and Jim Norman, "Solid Majority Still Opposes New Construction on Border Wall." *Gallup*, February 4, 2019.

[20] Penzenstadler, Nick. Trump: When Audiences Get Bored I Use the Wall. *USA TODAY*, January 30th, 2016.

migrants heading north while demanding that his wall finally be built. The president was quite convinced that the wall made for good politics.

Throughout his first two years in office, however, Trump refused to take actions that would materially advance his cause. While lauding the benefits of a "great, great wall," the president never offered detailed plans for its construction. Though Republicans held majorities of both chambers of Congress, Trump never offered congressional leaders specific policy concessions in exchange for the wall's construction. Just the opposite, Trump repeatedly declined offers by Democratic leaders for funding packages that significantly exceeded anything he would actually secure.[21] Meanwhile, the president characterized the infrastructure project in ways that altogether ensured that compromise could not be reached.[22] It wasn't until early 2019 that Trump finally took executive action on the matter by declaring a national emergency on the southern border. With a judicial challenge invariably following, however, even this move did not settle the matter.

Why did he behave this way? Political commentator Ezra Klein suggests an answer that is entirely consistent with our model's predictions: "Trump doesn't want the wall. He wants a fight about the wall.[23] And with reason. As Trump himself noted, debates over the wall's construction were a "total winner" for his party.[24] Rather than promptly deliver on this singular campaign promise, therefore, the president dragged out the debate just as long as he could, confident that the politics played to his advantage.

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[21]Steve Benen, "The immigration deal Trump should have taken, but didn't." MSNBC, December 12, 2018, http://www.msnbc.com/rachel-maddow-show/the-immigration-deal-trump-shouldve-taken-didnt.

[22]Glenn Thrush, "He Says 'Wall,' They Say 'Border Security': A Glossary of the Border Debate." *New York Times*, January 31, 2019.

[23]Ezra Klein, "Trump Doesnt Want the Wall. He Wants a Fight about the Wall." Vox, December 12, 2018.

[24]"Trump Makes Wall Funding Top Issue as Spending Deadline Looms." Reuters, November 28, 2018.

3.2.3 Polarization begets dysfunction

Above and beyond the electoral advantages associated with a project's implementation, the benefits of holding office also bear upon the politicians' behaviors. Specifically, we show, higher valuations of holding office inevitably lead to conflict regarding project implementation. No matter how beneficial or detrimental a project may be for the two candidates and the voter, exactly one candidate will support the project and the other candidate will oppose it. Partisan conflict, in this sense, is inescapable, as each political actor adopts exactly the opposite position of her competitor.

Proposition 5. *Suppose that $\theta_V \neq \theta^*$, where θ^*, as defined in (5), is the voter type who is indifferent between candidates L and H after project implementation. There then exists $\bar{\psi}$ such that, if $\psi > \bar{\psi}$, one party supports and one party opposes implementation. Moreover, such a conflict equilibrium can arise in cases where the voter either supports or opposes implementation.*

For voters, this effect can be extremely detrimental. Given sufficiently high ψ, it is guaranteed that one type of incumbent will either rationally forego a project that the voter supports or implement a project that the voter opposes. This is true even if the project is unambiguously "good" (i.e., everyone would receive a positive expected payoff) or unambiguously "bad" (i.e., everyone would receive a negative expected payoff). In contrast, if the office-holder cares very little about who succeeds her, good projects (in the sense defined above) will be reliably implemented, and bad projects will not.

There are at least three ways of thinking about ψ, the benefits accrued from holding office. Most naturally, perhaps, ψ reflects material, reputation, or egoistic rents. To wit, holding office may improve a politician's ability to fundraise, augment her party's brand, or deliver simple pleasures. Viewed this way, the model underscores the ways in which political rents can disrupt policy negotiations over which general consensus may exist. Indeed, as Proposition 5 shows, when these rents are sufficiently large, negotiations over public good provisions necessarily falter.

Alternatively, we might interpret ψ as the level of disagreement between politicians on

strictly ideological policies, which are unrelated to the kinds of public goods that our model explicitly studies. As these ideological divisions become more pronounced, the perceived stakes of an election rise and ψ increases in value. Understood this way, the model illustrates how strictly ideological considerations can infect deliberations over seemingly non-ideological public projects from which both parties receive a positive direct utility. As ideological disagreement rises, politicians may be less willing to compromise even on issues that are, in principle, non-ideological. In this way, topics of ideological contestation may bleed into negotiations over policies where both parties stand to receive an immediate positive payoff.[25]

One also might think of ψ as a measure of available opportunities for corruption among elected officials. Understood this last way, the model reveals yet another reason why public fraud hurts citizen welfare. In addition to the waste and inefficiency they present, opportunities for corruption distort the electoral incentives of elected officials to pursue popular public goods and ignore less popular ones. Our model, as such, helps explain why investments in public goods in those countries where corruption is rampant (within Europe, think Greece or Italy) do not align nearly as well with the voters' interests as those countries where corruption is less common (think England or France).

3.2.4 Summarizing the comparative statics on implementation

As the examples in this section make clear, the implementation of a policy can have very different consequences for a politician's direct utility and her subsequent electoral fortunes. The comparative static effects of parameter changes on the implementation decision, therefore,

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[25]These results speak to a small formal literature that analyzes the costs and benefits of polarization (Bernhardt et al. 2009; Krasa and Polborn 2010a,b). In these papers, a central question is whether the equilibrium positions taken by candidates in electoral competition are "too similar" or "too different" with respect to voters' preferences. The results presented here, by contrast, show that polarization on moral and cultural issues may spill over to non-ideological issues and create political conflict even about public policies over which there is broad public agreement.

tend to be ambiguous. Beyond issues of measurement and sample selection, this ambiguity illuminates why it can be so difficult to empirically study the causes and consequences of changes in political conflict over the lifespan of a government program.

When we can parse the electoral effect from the consumption effect, it is possible to unambiguously sign the comparative statics. Consider, for instance, technological changes that make a project more attractive without altering the electoral advantage generated by the project ex-post—say, a decrease in the implementation cost K, or a uniform increase in output for any investment level (i.e., going from production function $f(I)$ to $f(I) + m$, for some $m > 0$). In these instances, both politicians receive a higher direct consumption effect and neither suffers electorally. Consequently, both H and L become more inclined to implement the project.

Most comparative statics, however, have consequences for players' direct policy utility and their subsequent electoral fortunes. These comparative statics, as such, tend to be ambiguous. Consider, for example, an increase in θ_H. Directly, this parameter change increases the high type's payoff from the project, and (weakly) increases her investment level after implementation, I_H. Because she becomes a worse representative of the voter, however, the electoral effect of implementation is negative for H; and depending on which of these effects dominates, H may become more or less inclined to implement the project. For similar reasons, the effect of an increase in θ_H on L's implementation decision also is ambiguous. On the one hand, since H's post-implementation investment I_H increases (which is anyway already too high from L's point of view), H's continuation payoff after implementation, and thus her incentive to implement the project, decrease; on the other hand, the electoral effect that was negative for L is positive for H, making her more inclined to implement. Depending on circumstances, either effect may dominate.

Now consider an increase in θ_V, the voter's appetite for the project. While this change has no direct payoff-relevant effect for either L or H, it implies that the attractiveness of H (relative to L) increases after implementation. This makes high demanding types more inclined to implement the project, and low demanding types less inclined to do so.

An increase in θ_L directly affects L's payoff, but also makes her more attractive to the

voter ex-post. Thus, low demanding types become decidedly more inclined to implement the project. The effect of a change in θ_L on H's implementation decision, however, is ambiguous since the positive consumption effect (i.e., if L is in charge post-implementation, she now provides more investment, which H likes) is counteracted by a negative electoral effect.

The effect of an increase in ψ, the importance of reelection concerns, depends on whether implementation favors the party of the current incumbent. If and only if the answer to this question is affirmative, the incumbent becomes more inclined to implement.

4 Dynamic Political Conflict

Our model clarifies how observed levels of political conflict can change over the course of a project's lifespan. To see this, consider a baseline condition in which the opportunity to implement the project does not exist. In this scenario, the voter will always elect the candidate with the higher valence, i.e. L if $v_t > 0$ and H if $v_t < 0$. Deviations of the cutoff valence from 0 (i.e., $|v^*|$), as such, can be understood as a measure of the project's electoral salience for the voter in any given period.

Prior to its creation, a project's electoral salience depends upon L and H making different decisions on whether to implement the project in that period. Post-implementation, the project's electoral salience varies as L and H manage the project differently ($I_L \neq I_H$), as $v^* = (\theta_V f(I_H) - I_H) - (\theta_V f(I_L) - I_L)$ by (2). Our model reveals how a project's electoral salience can increase or decrease over time; and hence, how a project's implementation can either mitigate or stoke observed levels of political conflict.

Consider, first, a case when implementation reduces political conflict. Here we have in mind a project that has high implementation costs, but that both parties ex-post would manage very similarly, so that $v^* \approx 0$ after implementation. If H would implement the project while L would not, or vice versa, then there generally is a pre-implementation electoral advantage for one party in the period t election, depending on whether or not the voter prefers implementation in period t. The electoral salience of this project, and all the controversy that surrounds it, tends to be front-loaded; and once action is finally taken, the

issue promptly fades from the political landscape.

As an example of these dynamics, recall the Ostpolitik initiative undertaken by the SPD when it took over the West German government in 1969. This policy of increased diplomacy with the communist countries of Eastern Europe was highly polarizing in Germany at the time because the opposition CDU/CSU perceived it as normalizing communist rule over Eastern Europe, and as conceding valuable bargaining chips for future peace negotiations. Once Ostpolitik was firmly established, however, both parties at least implicitly agreed on the economic and diplomatic benefits (Pac and Anusz 1991), and subsequent political conflict altogether vanished. The issue disappeared as a cleavage in German politics, and when the CDU/CSU returned to government in 1982, Ostpolitik remained in force without major changes.

Rather than mitigating political conflict, however, a project's adoption can exacerbate it. Within the model, this can happen in one of two ways. First, any project that is implemented by both types but leads to different management ex-post clearly has zero salience in a pre-implementation election, and, generically, non-zero salience ex-post (except, of course, in the rare instance when the voter is indifferent between L and H's management ex-post).

Second, a project's electoral salience can increase when it is implemented only by a high type whose direct preference for the project makes her willing to spend electoral capital, in spite of an electoral disadvantage she endures post-implementation. In this case, if the voter is ex-ante close to indifferent towards implementation, then low salience of the issue before implementation gives way to a strong salience ex-post, based on a preference for the low demanding type's management of the project.

The Affordable Care Act is once again illustrative, as it reveals the latter possibility. Judged by any number of criteria, the federal government's involvement in health care policy went from being politically contested to explosive in the aftermath of ACA's enactment. House Republicans voted on upwards of 50 bills repealing the law, none of which stood any chance at overcoming a presidential veto, but all of which kept the issue politically salient. And the strategy worked. Just as many Americans identified healthcare as the most

important problem facing the nation in 2012 as they had in 2008.[26] In both the 2012 and 2016 presidential elections, the candidates devoted ample time in the debates and on the campaign trails detailing their views about healthcare. Collectively, the American Medical Association, the American Hospital Association, and Pfizer Inc. made just as many political contributions in 2012 and 2016 as they had in 2008, the year before the Act's passage. And roughly the same number of news stories about health care policy aired on the national networks in each of the last three presidential election years.[27] Rather than settling a matter of longstanding dispute, the enactment of the ACA energized its opponents and further embroiled subsequent electoral contests.

5 Conclusion

Political conflict is not strictly a function of politicians arguing from fixed and uncompromising points of disagreement. Rather, the incidence of political contention crucially depends upon the subject of discussion and the electoral benefits afforded by its persistence. As political initiatives evolve and the electoral landscape shifts, some conflicts that were once intense may soften, just as other conflicts that were previously sublimated suddenly awaken.

In this paper, we study a model in which a politician must decide whether to initiate a program at a fixed cost; and having succeeded in doing so, she then must decide how much to fund the program. Following each policy decision, the candidate faces a voter who decides whether to replace her with someone of the same or the opposite party. This simple framework reveals a great deal about how, in the presence of electoral uncertainty, the intrinsic benefits of holding office and players' project-related preferences either exacerbate or mitigate political conflict.

The model also clarifies the conditions under which politicians will take policy actions that deviate from their immediate policy preferences. We identify conditions under which

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[26]The complete time series is available at the Policy Agendas Project's website, `www.policyagendas.org`.

[27]Vanderbilt Television News Archive, `http://classic.tvnews.vanderbilt.edu/`.

a politician will initiate a project that she opposes in order to restructure public debates in ways that benefit her electorally. Similarly, we characterize conditions under which a politician will forestall action on a project she ostensibly supports in order to prolong the electoral advantages associated with its continued consideration.

Scholars have long recognized that observed levels of partisan conflict depend upon the policy agenda being discussed. This paper clarifies the consumption and electoral incentives that affect the willingness of politicians to support the specific elements of that agenda, recognizing the underlying differences between an attempt to create a program and a commitment to sustain one. As we have seen, this distinction proves crucial, as it helps explain why some policy actions trigger latent disagreements, whereas others settle longstanding ones, once and for all.

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"Political Conflict over Time"

Online Appendix

Proofs of Propositions

Proof of Proposition 1. Suppose that the project is implemented at some time $k \leq T$. We first show that all equilibria of subgames at time k have the same payoff.

Let $k = T - 1$. Then, in the final period T, the winner of the election, P, chooses the investment that solves (1). At the voting stage the voter selects the candidate from whom she receives the higher expected utility. In case of indifference, the voter can randomize, or in the case of a pure strategy equilibrium, she can select one of the candidates with probability 1. Note that the payoffs to the voter is the same in all equilibria. Further, payoffs are the same for candidates across different equilibria, except possibly for the single electoral shock realization that makes the voter indifferent. The equilibrium payoffs depend on the electoral shock realization and on the fact that the project was implemented, but not on any other part of the game's history.

Proceeding by way of induction, suppose we have shown the uniqueness result and lack of history dependence for k. We show that it also is true if the project is implemented in period $k - 1$. Independent of the actions at k, the equilibria of subgames starting at $k + 1$ only depend on the electoral shock realization at $k + 1$. Thus, the decision problem of the voter and the candidates is the same as in the case where there is only one period left. Equilibrium payoffs are unique for the voter. They are unique for the candidates except for the electoral shock realization at which the voter is indifferent between the candidates.

Now suppose that the project has not yet been implemented. If we are in period T then it is no longer optimal to implement it, and the voter is only indifferent between the candidates when electoral shock is zero, in which case randomization in equilibrium is possible. Thus, the voter's expected utility is the same in all equilibria of subgames starting in period T, and the equilibrium in the subgame only depends on the electoral shock, and the fact that the project has not yet been implemented.

Suppose we have shown uniqueness for subgames starting at $t > k$. We show that the same is true if the project is not yet implemented in period $t = k$. Independent of whether the project is successfully implemented, the voter's expected payoffs are identical in all subgames starting at $t = k + 1$, before the electoral shock is realized. In period k the voter selects the

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preferred candidate, or if the voter's utility is the same, then the winning candidate can be picked randomly. This, however, can only occur for exactly one electoral shock realization. Hence, equilibrium payoffs are unique in all subgames for the voter, and they are unique for candidates for all but a single electoral shock realization. □

Proof of Proposition 2. Note that if it is not optimal for L to implement the project in the first period, it is also not optimal to implement it in the second period. This follows because $\Delta(\theta_L) < K/(\delta + \delta^2)$ implies that $\Delta(\theta_L) < K/\delta$, and the electoral benefits only accrue for one period if the project is started at $t = 2$. Thus, if ψ is small, L does not implement the project. In contrast, because $\Delta(\theta_H) > K/(\delta + \delta^2)$ candidate H will implement the project at $t = 1$.

Type L implements the project in the second period if

$$\Delta(\theta_L) > \frac{K}{\delta} + \psi(\Phi(v^*) - \Phi(0)). \tag{9}$$

Because $\theta_V < (f(I_H) - f(I_L))/(I_H - I_L)$ it follows that $v^* < 0$. Thus, there exists $\bar{\psi}_2$ such that (9) hold if $\psi \geq \bar{\psi}_2$. Further, (9) implies

$$\Delta(\theta_L) > \frac{K}{\delta + \delta^2} + \psi(\Phi(v^*) - \Phi(0)),$$

and hence it is also optimal for L to implement the project in the first period.

Finally, H does not implement the project at $t = 1$ if

$$\Delta(\theta_H) < \frac{K}{\delta + \delta^2} - \psi(\Phi(v^*) - \Phi(0)). \tag{10}$$

Clearly, (10) holds for sufficiently large ψ, and also implies that $\Delta(\theta_H) < (K/\delta) - \psi(\Phi(v^*) - \Phi(0))$, which ensures that implementation at $t = 2$ is also not optimal for H.

Finally, if θ_V is close to θ_L then $\Delta(\theta_L) < K/(\delta + \delta^2)$ implies that $\Delta(\theta_V) < K/(\delta + \delta^2)$. Further, if the project is implemented, then the voter incurs and additional expected net-loss from electing a candidate with negative valence is given by $-\int_{v^*}^{0} v \, d\Phi(v)$. Thus, the voter prefers that the project is not implemented.

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$\square$

Proof of Proposition 3. The argument in the proof of proposition 2 immediately implies that none of the candidates implements the project in the first period if

$$\Delta(\theta_H) < \frac{K}{\delta + \delta^2} + \psi\left(\Phi(0) - \Phi(v^*)\right), \text{ and } \Delta(\theta_L) < \frac{K}{\delta + \delta^2} + \psi\left(\Phi(v^*) - \Phi(0)\right). \quad (11)$$

In contrast, the voter strictly prefers that the project is implemented if

$$\Delta(\theta_V) > \frac{K}{\delta + \delta^2} + \int_0^{v^*} v\, d\Phi(v). \quad (12)$$

We first show that there exist model parameters such that (11) and (12) hold.

Suppose that $\theta_L = 0$, $\theta_V = 1$ and $\theta_H = 1.2$. The production function has two efficient levels of provision: That is, the low type chooses $I_L = 10$ output $f(0) = 10$; the high type chooses $I_H = 10$ which yields an output $f(10) = 19$. For example, a strictly concave and increasing production function with this property is $f(I) = 10 + 9(I/10)^{25/27}$.

The valence cutoff after implementation is given by (2). In this case, $v^* = (19-10)-(10-0) = -1$, i.e., low demanding types have an electoral advantage of 1 after implementation. For simplicity, assume that $\Phi(-1) = 0$, i.e., low demanding types are elected for sure after implementation (this assumption does not really matter, but simplifies the presentation, as the provision level is now 10 for sure after implementation, with input $I_L = 0$). Further, suppose that $\Phi(0) = 0.5$.

Suppose there is no discounting ($\delta = 1$), then (11) become $1.2 \times 10 < 0.5K + 0.5\psi$, and $0 < 0.5K - 0.5\psi$. Further, the voter's condition (12) becomes $10 > 0.5K + \int_0^1 v\, d\Phi(v)$.[1] Because $\int_0^1 v d\Phi(v) < \int_0^1 d\Phi(v) \leq 0.5$, the last inequality holds if $10 > 0.5K + 0.5$. It is easy to find parameters such that satisfy these conditions, for example, $K = 16$ and $\psi = 14$ work.

Suppose by way of contradiction that the voter is strictly better off if the project is

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[1]Remember that the last term in the voter's implementation payoff takes into account that, after implementation, the voter sometimes has to select candidate L even though her valence is negative.

implemented, but that $v^* \geq 0$. Then (11) implies

$$\Delta(\theta_H) \leq \frac{K}{\delta + \delta^2} + \psi\left(\Phi(0) - \Phi(v^*)\right) \leq \frac{K}{\delta + \delta^2}. \tag{13}$$

Equation (13) and the fact that $\Delta(\theta_V) \leq \Delta(\theta_H)$ imply

$$\Delta(\theta_V) \leq \frac{K}{\delta + \delta^2} \leq \frac{K}{\delta + \delta^2} + \int_0^{v^*} v\, d\Phi(v),$$

which contradicts (12). Hence, $v^* < 0$. This immediately implies that $I_H \neq I_L$.

Now suppose that both parties want to start the project, i.e.,

$$\Delta(\theta_H) > \frac{K}{\delta + \delta^2} + \psi\left(\Phi(0) - \Phi(v^*)\right), \quad \text{and} \quad \Delta(\theta_L) > \frac{K}{\delta + \delta^2} + \psi\left(\Phi(v^*) - \Phi(0)\right), \tag{14}$$

but that the voter strictly prefers that the project is not implemented:

$$\Delta(\theta_V) < \frac{K}{\delta + \delta^2} + \int_0^{v^*} v\, d\Phi(v). \tag{15}$$

We use the same production function as above, and preference parameters $\theta_H = 1.2$ and $\theta_L = 0$. Thus, inputs are again $I_L = 0$, and $I_H = 10$, and outputs are 10 and 19, respectively. Suppose that $\theta_V = 0$. Then (2) implies that $v^* = -9$, and hence, assuming the same valence distribution Φ, it follows that L wins with probability 1 after the project is implemented. Equation (15) becomes $0 < 0.5K + \int_0^{v^*} v\, d\Phi(v)$, which holds for all K.

Equation (14) now simplifies to $1.2 \times 10 > 0.5K + 0.5\psi$, and $0 > 0.5K - 0.5\psi$. For example, $K = 8$ and $\psi = 10$ satisfy these conditions. Note that candidate L has an electoral advantage after implementation.

Finally, suppose by way of contradiction that $I_H = I_L$. Then $v^* = 0$. Now (14) implies $\Delta(\theta_L) > K/(\delta + \delta^2)$. But $\Delta(\theta_V) \geq \Delta(\theta_L)$ then implies $\Delta(\theta_V) > K/(\delta + \delta^2)$, which contradicts (15) when $v = v^*$. Thus, $I_H \neq I_L$. □

Proof of Proposition 4. See text. □

Proof of Proposition 5. The argument in the proof of Proposition 2 implies that candidate

H implements the project in the first period and L does not implement it if

$$\Delta(\theta_H) > \frac{K}{\delta + \delta^2} + \psi\left(\Phi(0) - \Phi(v^*)\right), \text{ and } \Delta(\theta_L) < \frac{K}{\delta + \delta^2} + \psi\left(\Phi(v^*) - \Phi(0)\right). \quad (16)$$

By assumption, $\theta_V \neq \theta^*$ and hence $v^* \neq 0$. Because Φ has a strictly positive density around zero, it follows that $\Phi(0) \neq \Phi(v^*)$. Suppose that $\Phi(v^*) > \Phi(0)$. Then (16) holds for sufficiently large ψ.

Conversely, if $\Phi(v^*) < \Phi(0)$, then the reverse of both inequalities in (16) holds for ψ sufficiently large. Hence, H does not implement the project, while L implements it. Thus, for large ψ exactly one of the two candidates implements the project. □

Equilibrium Behaviors Across the Parameter Space

Our model supports several distinct types of equilibrium behavior. In some cases, implementation decisions conform with politicians' policy preferences, while in others, they do not. In order to investigate how frequently each of these cases arises, we evaluate some numerical examples and graph the parameter regions for which different types of equilibrium behavior obtain. Rather than being exceptional, non-conforming behaviors turn out to be quite common.

In Figure 1, we graph how different implementation regions depend on the importance of reelection concerns ψ and the voter's policy position θ_V, for a project with implementation cost $K = 2$, discount factor $\delta = 1$, $\theta_L = I_L = f(I_L) = 0$, and $\theta_H = I_H = 1$ and $f(I_H) = 2$. The left panel displays the office-holder's decision in period 1, and the right panel her decision in period 2.

In period 2, neither type of politician would implement the project on its merits. Even if H is reelected, the project requires one unit of investment in period 3 to generate two units of output. Because the project also requires two units of initial investment, the net return is strictly negative for all types.

If the project is implemented, then (5) implies that type $\theta^* = 0.5$ is indifferent between the candidates. Thus, the project generates electoral effects that are positive for H if $\theta_V > 0.5$

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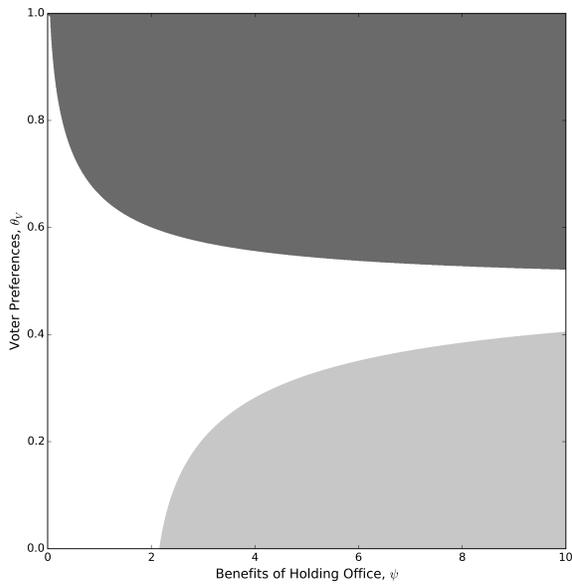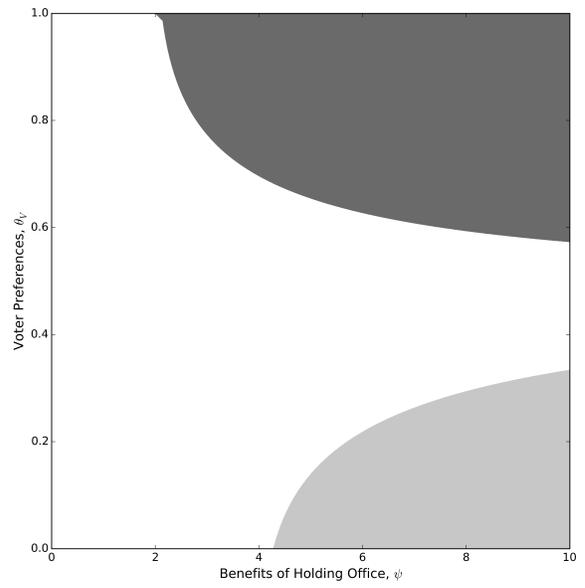
(a) Implementation at $t = 1$　　　　(b) Implementation at $t = 2$

Figure 1: Implementation regions for $K = 2$, $\delta = 1$, $\theta_L = I_L = f(I_L) = 0$, $\theta_H = I_H = 1$ and $f(I_H) = 2$. Dark grey area: only H implements. Light grey area: only L implements. White area: nobody implements.

and positive for L if $\theta_V < 0.5$. Consequently, the favored candidate will accept the policy loss and implement the project provided that the reelection benefits ψ are sufficiently large. The reason that the parameter set for which H implements is slightly larger than the one for L is due to the fact that H also receives direct payoffs from the project, while L does not.

Now consider the candidates' implementation choices in period 1, shown in the left panel. Again, if there are no benefits from holding office, i.e., $\psi = 0$, then the project should not be implemented. In particular, if candidate H would win in both periods after implementation, then the net-project payoff is $2 - K = 0$. Thus, a voter type $\theta_V = 1$ would be indifferent between implementing and not implementing the project, whereas all types $\theta_V < 1$ would be strictly worse off if the project is initiated. As a result, the project is only implemented if one of the candidates has a sufficiently large ex-post advantage, i.e., if θ_V differs sufficiently from $\theta^* = 0.5$, and if ψ is large.

The areas in which the project is implemented look similar to those in the right-panel, except that the areas shift to the left. The reason for this is simple: both the project returns and the ex-post benefits from reelection accrue over two periods instead of one, making both politicians more willing to implement the project.

Consider now Figure 2, which changes the following parameters relative to Figure 1: $K = 0.4$, $f(I_L) = 1.5$ and $f(I_H) = 3$. This project is thus more attractive to implement, both because of lower implementation costs K, and because the returns from investment are larger (and positive even when L does not spend anything in a period after implementation).

The right panel shows the parameter areas where the project is implemented in period 2. Without reelection concerns ($\psi = 0$), H strictly prefers to implement, as she secures at least a payoff of $1.5 - 0.4$, even if L wins in period 3. For H not to implement, it must be true that H has an electoral disadvantage (i.e., θ_V is sufficiently low),[2] and that the benefits of holding office ψ are sufficiently large. As L receives no direct payoff from the project, her only motivation to implement comes from the electoral effect, so it is necessary for θ_V to

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[2] Equation (5) implies that the voter who is indifferent between L's and H's management of the project is given by $\theta^* = 1/1.5 = 2/3$.

(a) Implementation at $t = 1$ (b) Implementation at $t = 2$
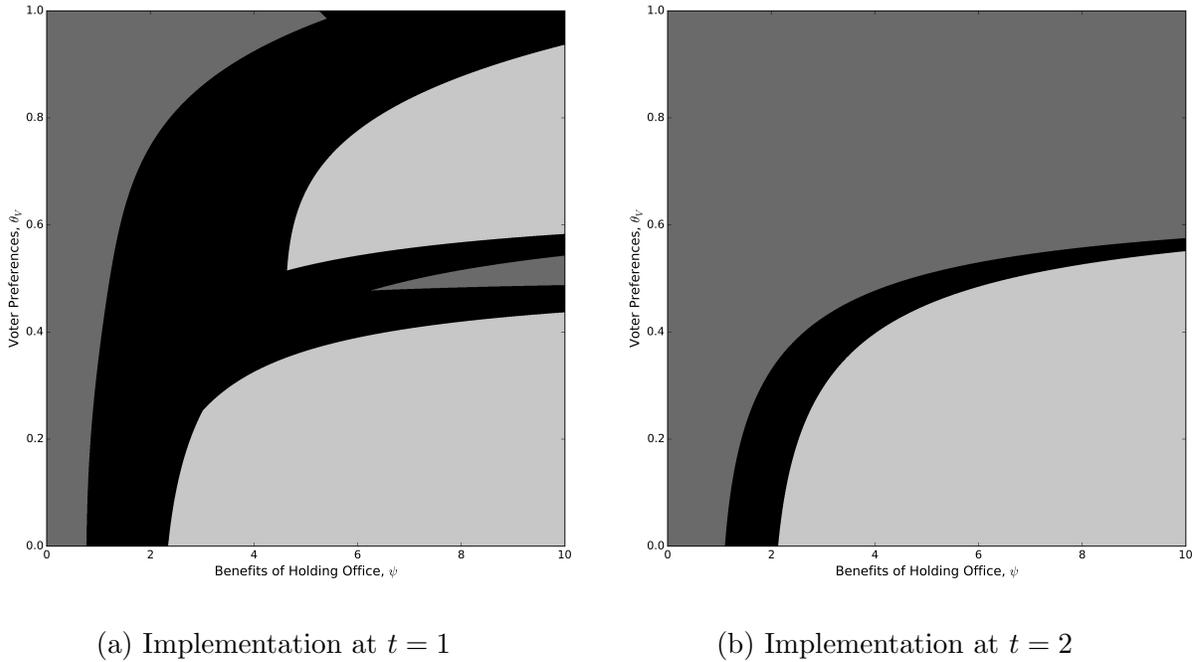
Figure 2: Implementation regions for $K = 0.4$, $\delta = 1$, $\theta_L = I_L = 0$, $\theta_H = I_H = 1$, $f(I_L) = 1.5$, $f(I_H) = 3$. Dark grey area: only H implements. Light grey area: only L implements. Black area: both implement.

be sufficiently small and ψ to be sufficiently large. The parameter sets for which L and H implement, respectively, overlap for this project so that there are some values for which both candidates implement, while there are none where nobody implements.

Behavior in period 1, shown in the left panel, is significantly more complex and displays different types of strategic considerations. When ψ is close to zero, H implements for any θ_V because she receives a positive net payoff from the project even if L holds office in periods 2 and 3. Conversely, L clearly has no reason to implement, so we are in a region where only H implements. For slightly higher values of ψ, we enter a region in which the electoral effect is sufficiently important for L to also implement.

For even higher values of ψ, this is followed by two separate areas in which only L implements: one at high levels of θ_V, and the other one at low levels of θ_V, separated by a narrow path in which still both types implement. In the light-grey area with low values of θ_V, *only* L implements in period 1 because she enjoys a significant electoral advantage ex-post. The reasoning there is thus the same as for the L-implementation area in period 2 on the

right. In contrast, the light-grey area with high values of θ_V corresponds to L taking an issue off the table, while H tries to keep it alive. In this region, if no implementation occurs in period 1, then only H implements in period 2 (see left panel). Because the voter likes the project, this creates a substantial electoral disadvantage for L when no implementation occurred—a situation that H wishes to perpetuate, whereas L wishes to end it.

Finally, there is one more region in which only type H implements the project, depicted by the narrow strip of dark grey at the right portion of the panel. To see what is happening here, it is useful to consider particular parameter values, which we now set at $\psi = 10$ and $\theta_V = 0.55$. Here type L has an ex-post advantage after implementation, resulting in a 64% probability of winning after the project is implemented. However, if L delays, she will win with an even higher 76% probability because H would not implement in the second period. Given that L does not derive direct benefits from the project, it is clearly better for her to delay. This reasoning, together with the fact that H's direct project net payoffs are positive, implies that H wants to implement.

Overall, then, we can see numerous instances when electoral considerations induce both candidates to behave in ways that deviate from their direct policy payoffs. As the figures make clear, parameter regions with strategic implementation or strategic delay can be quite substantial.