Reactionary Reform and Radical Restraint

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Abstract

We study a model of dynamic policy-making with three distinct features. First, policy agreements made today persist until they are replaced with a new agreement. Second, agents take into account the dynamic consequences of today's policies for future policy-making opportunities. Third, there is uncertainty about who will hold political power to propose and to veto policy changes in the future. We study the optimal reform agenda of agents who face such an environment and who either favor or oppose long-run reform vis-a-vis an initial status quo. We show that today's agenda-setter may hold back from fully exploiting present opportunities to move policy towards her long-run ideal. When there is a high chance that tomorrow's proposer and veto player are aligned in favor of long-term reform, an agenda-setter who is hostile to long-run reform may even implement more reform in the short-term than an agenda-setter who favors long-term reform. Optimal proposals vary both continuously or discontinuously and possibly non-monotonically with changes in agents' uncertainty, ideological tastes and patience. We illustrate our argument with a range of contemporary and historical examples in which groups' advocacy and opposition to policy initiatives cannot be explained by their contemporary policy interests.

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1. Introduction

Policies that are implemented today affect the policies that are implemented in the future. This *dynamic linkage* in policy-making may arise through information (Callander and Hummel, 2014), preferences (Glaeser and Shleifer, 2005) and institutions (Bowen, Chen and Eraslan, 2014). We study the consequences of a dynamic linkage which arises in contexts where existing policy agreements prevail until they are superseded by a new agreement. This may be a consequence of formal institutional rules, such as mandatory spending programs in the United States (Bowen, Chen and Eraslan, 2014). It may also arise *de facto*: an example is the Barnett formula, used in the United Kingdom to adjust public expenditure across Northern Ireland, Scotland and Wales. Introduced in 1978, it was initially intended to serve as a temporary expedient but has been in continuous use, ever since.[3]

In these environments, the immediate payoff from today's policy is also the *opportunity cost* of changing policy, tomorrow. How does this affect the short-term reform strategy of an agent whose long-term preference is to move policy away from an unpalatable status quo? How does this strategy vary with the form and degree of uncertainty over who will hold power in the future? And, how do the answers to these questions depend on agents' ideological preference in favor of, or against, long-term policy reform?

We explore these questions in a political economy setting with far-sighted agents, building on the seminal framework of Romer and Rosenthal (1979). A crucial ingredient of our analysis, and our main departure from existing work, is that agents face uncertainty about who will hold power in the future both to propose and to accept policies vis-a-vis the endogenous status quo.

In our model, there is a *proposer*, and a *restrainer*. The proposer may be an executive - such as a president or a prime minister - or a senior legislative office-holder such as the majority leader in one of the legislative chambers. The restrainer may be interpreted as the median legislator in the same or another legislative chamber, or a super-majority where such a rule applies. More generally, it may constitute any agent which can forestall progress on an initiative, such as a faction within a governing party or coalition of governing parties (Roemer (1999), Levy (2004)).

There are three types of restrainer: a *progressive*, a *moderate* and a *conservative*. Both the moderate and progressive would like to move policy in the same direction away from an exogenously

[3]Lord Barnett, himself, reflected in 1997: "I am flattered that the Barnett Formula has lasted twenty years...[at] the time, I must confess, I did not think it would last a year or even twenty minutes." *Treasury Committee, HM Treasury, evidence to the Treasury Committee, The Barnett Formula, second report HC 341 1997-98, Q.1*

given status quo, but the progressive ideally prefers to move policy further than the moderate. The conservative also wishes to shift policy away from the status quo, but in the opposite direction to both the progressive and moderate. Initially, the restrainer is a moderate.

Likewise, the proposer may either be a *radical* or a *reactionary*. The radical wishes to move policy away from the status quo in the same direction as the progressive and moderate restraining voter, but to a greater extent than both. Similarly, the reactionary wishes to shift policy in the same direction as the conservative restraining voter, but to a greater extent.

Thus, a crucial feature of our setup is that the proposer and the restraining voter are *at best* imperfectly aligned. Even when their interests are nominally aligned - such as when they belong to the same political party - the 'effective' decisive agent need not share precisely the preferences of the proposer. This may be due to explicit supermajority requirements or the implicit constraints arising from the ability of a determined minority - either on the chamber floor, in a legislative committee or through a faction within the majority party - to impede the progress of a bill.

The timing unfolds as follows. At date one, the proposer offers the restrainer a choice between the status quo, and an alternative. If the proposer's alternative is adopted by the restraining voter, it becomes the status quo in the next period. Otherwise, the initial status quo remains in place. In between periods, however, the identity of both the legislative proposer and the restrainer may change, due for an example to an election or some form of upheaval. Specifically, a reactionary (radical) proposer may remain in power or be replaced with a radical (reactionary) proposer. Similarly, the moderate restrainer may retain her veto power, or be replaced with a progressive or conservative. Once again, the proposer designs a policy. If approved by the restraining voter, it is implemented; otherwise the status quo is implemented.

We explore how optimal proposal strategies are determined by uncertainty about the distribution of future proposal and veto power, as well as agents' policy preferences and their relative concern for short- versus long-term policy outcomes. If agents care solely about the short-term, the solution takes a simple form: move policy as far as possible in the proposer's favored direction, subject to the constraint that the restraining voter prefers the outcome to the status quo.

When agents care about the future, however, they may benefit from *dynamic compromise*. Suppose that a radical date one proposer believes that tomorrow's election will yield a progressive restrainer and that she will also retain proposal power. For example, if each agent is separately elected and election timing is staggered, the proposer (say, the president) may be certain to hold power for another term, but the identity of the restrainer (lower chamber majority) is uncertain. The extent to which the radical will be able to exploit a future progressive restrainer in order

to move policy in her favored direction is proportionate to the restrainer's discontent with the status quo. This exploitability is endogenous to the radical's choice of date one proposal which - if accepted - will become the status quo: the less reform she proposes today, the greater the opportunity for more potent reform in the future.

Suppose, instead, that the radical believes that tomorrow's restrainer is likely to be progressive, but that she will cede proposal power to the reactionary. In that case, static and dynamic incentives are aligned: the progressive restrainer will frustrate any subsequent attempt by the reactionary proposer to move policy back towards the initial status quo, but the reactionary proposer will be unwilling to instigate any further movement towards the radical's ideal point. Since both future gains and losses are bounded by the prospect of political mis-alignment, it is better to bring forward any prospective reform.

But if the radical believes *both* that tomorrow's proposer will be a reactionary *and* that she will face an aligned conservative restrainer, incentives for dynamic compromise are compounded: the more the radical moves policy in her favored direction, today, the more frustrated the conservative voter will be with the induced status quo. In turn, this increases the ability of a subsequent reactionary proposer to exploit the conservative restrainer in order to implement a potent counter-reform.

The reactionary proposer at date one faces a similar problem. If she believes that tomorrow's restrainer will be a progressive, and that she is likely to retain proposal power, there is little reason to compromise: any movement in the direction of the progressive will be locked in over the long-term. But if instead the reactionary proposer believes that she will cede proposal authority to the radical proposer, she may benefit from implementing a partial reform in order to partially acquiesce to the progressive's demand for change. By doing so, she diminishes the ability of a future radical to exploit the progressive, forestalling even greater movement away from the initial status quo.

More generally, the exploitability of each of the potential restraining voters at date two is determined by the degree of imperfect alignment between the holder of future proposal and veto power, relative to the induced status quo at that date. This is partly exogenous, since it relates to aggregate uncertainty about the distribution of these powers. But it is also a dynamic consequence of the date one proposal. This is because the proposal determines (i) *which* of the potential restrainers will be partially aligned with each of the possible future proposers and (ii) *how* much these voters can be exploited. The latter varies smoothly with the initial proposal, whereas small changes in the proposal can exert discontinuous effects on the former.

We provide conditions under which incentives for dynamic compromise lead the reactionary to

propose more short-term reform than the radical. This arises when the radical proposer and the progressive voter are relatively likely to hold proposal and veto power at the second date. In this case, the radical 'steps back in order to leap forward', fostering the opportunity to make dramatic future reform over the long-run by showing restraint in the short-run. For the same reason, the reactionary 'steps forward in order to keep back', sacrificing ground today with a view to preventing further slippage in the future.

Our model can make sense of situations in which policy advocacy and opposition cannot be explained by the respective groups' and individuals' contemporaneous policy interests.

A powerful illustration of 'stepping forward to keep back' can be found in the Second Reform Act of 1867. That a British Conservative Government would implement legislation which extends voting rights to the British working class was long seen as paradoxical. However, Gallagher (1980) argues that "[t]he Act was certainly conservative in that it was an early concession to public opinion" (Gallagher, 1980, 147), while Cole (1950) argues that its enactment effectively postponed further reform for nearly 20 years.

A second example from British political history illustrates the phenomenon of 'stepping back to leap forward'. In 1969, the British Labour government attempted to reform the House of Lords - the upper chamber of which membership was partly hereditary - by restricting the voting rights of hereditary peers and weakening their capacity to delay legislation approved in the House of Commons. It was defeated, in part, by a coalition of left-wing abolitionists within the Labour party, led by Michael Foot, who "was anxious that any reform (rather than outright abolition) would merely serve to imbue the House of Lords with greater legitimacy and longevity..." (Shell, 2006, 191)

Do politically-minded agents possess the foresight to make these kinds of calculations? We argue in favor of this claim by way of a contemporary example from American politics. In 2009, *The American Clean Energy and Security Act* was designed to "curb the heat-trapping gases scientists have linked to climate change"[4]by creating a cap and trade system. The legislation was opposed by TheClean.org, "a grassroots coalition... devoted to moving the U.S... to an economy based on renewable energy" which argued the following:

[4]Broder, John (2009-06-26). "House Passes Bill to Address Threat of Climate Change". New York Times. Archived from the original on 28 June 2009. This example was originally cited in Schraub (2013)

> Since President Obama is likely to sign the bill with great fanfare, what will the public take away from this? Will they see it as a win - that the problem is solved? If so, what will that mean for pushing for the needed steps later? How will the public be mobilized to push their Representatives when the official and media message is that this is landmark legislation?
>
> '*Why We Cannot Support This Bill*'[5]

We show that optimal proposals may vary continuously, discontinuously and (possibly) non-monotonically with the intensity of agents' ideological tastes as well as uncertainty about who will hold power in the future. The discontinuity arises from the proposer's decision about which side of the moderate restrainer's ideal policy to place her initial proposal, which determines whether the moderate restrainer tomorrow will be imperfectly aligned with the reactionary or the radical.

Suppose, for example, that the radical proposer is relatively likely to hold power in the future, and that there is no prospect of a conservative restrainer at date two. Consider an increase in the probability that the restrainer is a progressive. How does this effect the proposer's choice of policy? For the reactionary proposer, this always induces more dynamic compromise in the short-run in the form of *more* initial reform. How does the radical proposer respond to the same change in uncertainty? One might suppose that incentives for dynamic compromise push her to reform less in the long run.

This intuition may fail, however. Suppose that the radical chooses an initial proposal which leaves only the progressive restrainer willing to accept further reform in the future. In that case, the radical will be able to implement more radical reform in the future only if she faces the progressive. As the probability of this event increases, two effects come into play. First, the higher probability of an aligned - and thus exploitable - progressive restrainer leads her to prefer less reform today, since this allows for more aggressive radicalism in the future. We refer to this as the *alignment* channel. However, agents are risk averse: as the distribution over the set of exploitable voters shifts mass towards the progressive, each proposer has a partial incentive to move her proposal in the same direction. We refer to this as the *risk* channel. For the reactionary proposer, both the alignment and risk channel work in the same direction. For the radical, however, the alignment channel dominates only if her most preferred reform policy is sufficiently far away from the status quo. That is, the radical proposer responds with *less* initial reform only if her ideological inclinations are sufficiently extreme.

[5] http://grist.org/article/2009-06-25-energe-climate-debate-aces/

If, instead, the radical proposer chooses an initial reform which leaves both the moderate and progressive restrainer willing to accept further reform in the future, the alignment channel is unaffected by an increase in the probability of a progressive. Regardless of which of the restrainers holds veto power in the future, each will be aligned with the radical: the distribution over future veto power between them is irrelevant. But the risk effect is present, and leads the radical to respond with *more* initial reform. Finally, we show that the radical proposer initially leaves open the possibility of future reform with a moderate voter if and only if the probability that she will remain the proposer is large.

Thus, local changes in optimal proposals with respect to tastes and uncertainty depend on prior decisions about which voters to align with one's future interest. Moreover, these decisions are themselves informed by uncertainty about the future distribution of power. In our example, depending on her own prospects for remaining in office, the radical proposer may respond to a higher chance of a progressive by either offering *more* reform (if she is moderately likely to hold power, or not too inherently mis-aligned with the progressive) or *less* reform (if she is very likely to hold power and strongly mis-aligned with the progressive). Note that these competing forces are entirely within period: they are distinct from the inter-temporal trade-offs between short- and long-term gains.

Our benchmark analysis assumes that the proposer is dynamically sophisticated, but that the restrainer evaluates alternatives to the status quo based on her instantaneous payoff. In the final section, we show that when the initial moderate restrainer also evaluates the proposal according to its long-term consequences, the scope for dynamic compromise may increase. The reason is that the dynamic interests of the moderate voter are partly aligned with today's proposer, to the extent that both fear a shift of power towards a mutually opposing end of the political spectrum. As such, the moderate restrainer may now be willing to accept proposals which give her a lower stage payoff than the status quo, but which inoculate her against policy moving even further away from her in the future. In turn, this empowers the proposer to engage in even more aggressive dynamic compromise than she would, absent the implicit collusion of the restraining voter.

The outline of the paper is as follows. After a review of the literature, we present our base model. We first analyze two relevant benchmark cases: one in which agents are wholly impatient, and one in which agents care about the future but in which veto power is certain to remain in the hands of the moderate restrainer in both periods. We then analyze the full model in which the identity of both the proposer and the restrainer may change across periods.

2. Related Literature

Our work relates to a number of important literatures in which agents bargain over policies, and in which there is a reversion point which is either fixed, or evolves as a function of earlier agreement or disagreement. A pioneering contribution to this literature is Romer and Rosenthal (1979*b*), in which a proposer with fixed identity can a make a proposal (or sequence of proposals) to a group of voters which is pitted against a fixed, exogenous status quo. As in our model, the reversion point exerts a powerful influence on equilibrium proposals, and may leave significant rent for the agenda-setter. This framework has been extended to legislative bargaining contexts in both spatial and distributive settings.

Baron (1996) introduced the endogenous status quo into a spatial legislative bargaining setting. He fixes the distribution of preferences of agents but allows the proposer to be drawn in each period according to a random recognition rule. Baron recovers a 'dynamic median voter theorem': policies may move to the left or the right in any period, but they gradually converge to the ideal policy of the median voter. Moreover, they never move further away from her ideal point than the inherited status quo in any given period. Our innovation is introduce some uncertainty about the preferences of the future decisive voter. With this uncertainty, convergence to either the present or the anticipated future pivotal voter's ideal policy need not be a consequence of dynamic compromise. To illustrate this, formally, Proposition 1 characterizes optimal proposals in the specialized case where the preferences of the restrainer are constant across periods.

Epple and Riordan (1987) introduced the endogenous status quo into a 'divide the dollar' setting. Agents bargain over the division of a fixed surplus, and agreements struck today become the reversion point in case of a subsequent failure to reach agreement. More recent work includes Kalandrakis (2004), Kalandrakis (2010), Anesi and Seidmann (2012), Baron and Bowen (2013) and Nunnari (2014). Some authors study policy environments with an endogenous status quo which admit both spatial and distributive interpretations (for example, Bernheim, Rangel and Rayo (2006), Diermeier and Fong (2011)) and others explicitly include both dimensions, such as Cho (2012) and Bowen, Chen and Eraslan (2014).

Our work also relates to a large literature on the political economy of reform. In these models, uncertainty about economic fundamentals, agents' preferences, or future prospects for holding power exert a powerful influence on incumbent power-holders' behavior while in office. Cukierman and Tommasi (1998) investigate why it is so often parties with an avowed historical opposition to certain kinds of reforms - such as market liberalization - which are the most likely to implement

these policies while in office. Their answer is that these agents' ceteris paribus hostility to these policies ensures that only they can credibly claim that they are indeed necessary. We also obtain what they refer to as 'reversals' in Proposition 8. However, our explanation is based not on asymmetric information about the policy context, but fear that a failure to implement reform now will only make the inevitable actions of a successor even more drastic. This motive appears to resonate with Schroeder's defense of his package of rightist social and economic reform, 'Agenda 2010', in which he argued: "Either we modernize ourselves, and by that I mean as a social market economy, or others will modernize us, and by that I mean unchecked market forces which will simply brush aside the social element".[6] Acemoglu, Egorov and Sonin (2013) show that when politicians' preferences are private information, they may choose populist policies in order to signal their congruence with a leftist median voter.

Other work on the political economy of reform focuses on other channels through which a dynamic linkage in policy-making can arise. In Callander and Hummel (2014), agents can use information from past policy outcomes to forecast the consequences of future policies. More generally, parties use contemporaneous policies to manipulate their prospects for holding office, or the distribution of long term policy outcomes. Work in this vein includes Prato (2014), Callander and Raiha (2014), Milesi-Ferretti and Spolaore (1994), and over the long-run, Acemoglu, Egorov and Sonin (2014). Callander and Raiha (2014) make an important observation which is relevant for our own motivation: dynamic linkages can arise not only from institutional and de facto features of political bargaining environments, but also from the inherent durability of policies, themselves; in their leading example, public infrastructure projects persist beyond a single electoral cycle.[7]

3. Model

We consider a two-date economy, with dates 1 and 2; the policy space is $\mathbb{R}$. The agents are a *decisive restraining voter* ("the restrainer"), and a *legislative proposer* ("the proposer"); at date t, their ideal policies are r_t and p_t, respectively. The legislative proposer may be thought of as the executive or a senior legislative office-holder. The restrainer may be interpreted as the median legislator or the 'effective' pivotal legislator in cases where a super-majority requirement applies.

[6] Gerhard Schroeder, 'Agenda 2010 - The Key to Germany's Economic Success', *Social Europe*, http://www.social-europe.eu/2012/04/agenda-2010-the-key-to-germanys-economic-success/

[7] It may also be politically infeasible to simply cancel a project put in place by a previous government, or there may be significant costs associated with doing so. For a recent example, see: http://www.theguardian.com/uk-news/2014/aug/18/uk-bill-eborders-contract-termination-raytheon.

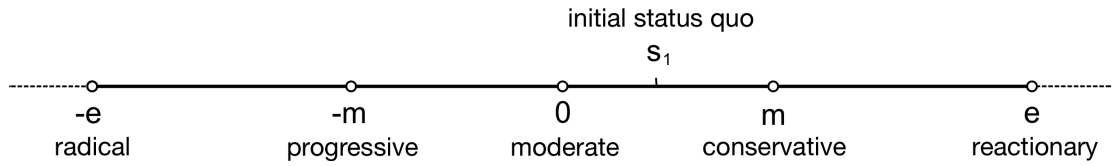

Figure 1: Agents' ideal policies, and the location of the initial status quo

The stage payoff of each agent with ideal policy i associated with implemented policy $y_t \in \mathbb{R}$ at date t is $u_i(y_t) = -(y_t - i)^2$. Initially, there is a status quo $s_1 > 0$ which is inherited from a previous legislative cycle. The proposer may initially be a *reactionary*, or a *radical*, with ideal policy e and $-e$, respectively, where $e > s_1$. Initially, the restrainer is a *moderate*, with ideal policy normalized to zero. Symmetry of agents' ideal policies facilitates tractability but is not needed for our results.

The timing is as follows. At the start of date one, the proposer chooses a policy $y_1 \in \mathbb{R}$ which the restrainer may *accept* or *reject*. If the proposal is accepted, it is implemented, otherwise the status quo is implemented. The policy which is implemented at date one serves as the status quo at the start of date two.

In between dates 1 and 2, an election takes place which may change the identity of the proposer, or the restrainer, or both. For example, in a parliamentary system both agents may change during the course of a single election; in a presidential system in which election timing is staggered, one agent may remain in office for sure whilst the other is subject to potential replacement. One may interpret the change in restrainer as a change in president in contexts where proposals originate in the legislature. Even though this is constitutionally stipulated in the United States, there are also circumstances in which it may be natural to conceive of the president as a proposer, in which case the change in restrainer may be due to a mid-term election. We assume that at date two, the restrainer may remain a moderate or be replaced by either a *conservative* or a *progressive* restrainer with ideal policy $m > s_1$ or $-m$, respectively. We let $f(r_2)$ denote the probability that the date two restrainer has ideal point $r_2 \in \{-m, 0, m\}$. Likewise, the proposer may remain a reactionary (radical) or be replaced by a radical (reactionary). We let α denote the probability that the date two proposer is a radical, and β denote the probability that the date two proposer is a reactionary. For simplicity, we assume that the probability distributions over these transitions are independent, but we can easily accommodate and later discuss special cases in which changes in each kind of power may be correlated. The ordering of ideal policies and the initial status quo are shown in *Figure 1.*

At date two, the proposer chooses a policy $y_2 \in \mathbb{R}$ which the restrainer may *accept* or *reject*. If the proposal is accepted, it is implemented, otherwise the status quo is implemented again, and the game ends.

We focus on a setting in which proposers and restrainer are *at best* imperfectly aligned, i.e. $e > m$. Informally, this restriction implies that whilst the radical (reactionary) proposer would like to move policy in the same direction as the progressive (conservative) restrainer, the proposer would wish to go significantly beyond the restrainer. As we suggested, in the introduction, there are many reasons why this imperfect alignment is relevant. Suppose that each agent comes from the same party. Institutional rules may render the 'effective' restrainer different from the median of the legislative chamber in which the party holds a majority. This would be the case if proposals initiate in a lower chamber but are subject to veto by an agent in the upper chamber. Or, it may be possible for a determined gatekeeper such as the senior member of a legislative subcommittee to stop a bill even from progressing to the floor of the chamber. Alternatively, the agents may face different electoral constituencies - for example, national versus local electorates. We assume that the imperfect alignment between agents is sufficiently strong: that is, $e - m > m + s_1$. This implies that for any date two status quo which results from the date one interaction, each proposer would still like to move policy closer to her ideal point than any realized restrainer would be prepared to accept. Later, we discuss how this assumption can be relaxed in a more general setting with a larger set of potential future proposers and restrainers.

The payoff of the each agent with ideal policy i is $\delta u_i(y_1) + (1 - \delta)u_i(y_2)$, where $\delta \in [0, 1]$. The convex weight δ captures the degree to which the agents place relative value on policy which is made in the next term, as opposed to the current term. When the vote over the first date policy takes place immediately prior to the election, δ may be close to one, since there will be an imminent opportunity to revise policy after the election. Alternatively, a low value of δ may indicate that opportunities to change policy in the future are very limited. The most natural literal interpretation of our two date formulation is that the policy which is put in place at the end of a two-date term is subsequently locked in over a sufficiently long horizon that future opportunities to change it are almost largely discounted by relatively impatient politicians.

Throughout, we assume that the legislative proposer is 'dynamically sophisticated': she recognizes that political competition is not a one-shot game and thus takes fully into account the future consequences of her proposal. To simplify the exposition, our benchmark analysis assumes that the restrainer evaluates policy solely according to her status quo payoff. This is a heuristic device that allows us to focus, first, on the dynamic incentives of the legislative proposer at date one.

Then, we discuss the case in which the restrainer is also dynamically sophisticated, highlighting what features of equilibrium do and do not change relative to the benchmark analysis.

We assume that the distributions over the future holder of proposal power and veto power are independent and exogenous. In practice, one would expect that forces which make a conservative restrainer more likely may also make a reactionary proposer more likely. Of course, the model could easily be adapted to allow for positive correlation, and we will show that doing so would only strengthen incentives for dynamic compromise. But there are also situations in which such an assumption would be less plausible. For example, if the proposer and restrainer are subject to separate, staggered elections, it may be that the proposer's identity is fixed and the restrainer's can change at a given election. In an American context, for example, the president may face a mid-term election in which it is likely that his party will perform badly. In that case, the restrainer's ideology is likely to move in the *opposite* direction to that of the proposer. Again, the model is easily modified to accommodate this.

Consider, instead, the exogeneity of the distribution over future proposal and veto power. In general, policy reforms have a direct and an indirect effect on preferences; first, given agents' tastes and preferences, they affect their *induced* preference trade-offs over future reforms vis-a-vis the induced status quo. Second, they change their underlying *primitive* preferences, themselves. For example, allowing occupants of state-housing to purchase these homes makes them owners of fixed assets, which changes their preferences over certain kinds of redistributive policies.[8] Translated into our framework, there are settings in which the distribution over proposal and veto power is itself a function of policy choices, today. We make three comments. First, and quite simply, it is important to understand the consequences of both effects, and our present framework allows us to avoid conflating the two whilst still uncovering a bevy of subtle trade-offs. Second, we could quite easily introduce this effect into our modeling framework; our results would depend on assumptions about (a) the sensitivity of the distribution over future proposal and veto power with respect to immediate policy changes and (b) the direction in which reforms might affect (primitive) preferences. Finally, and related to our second point, changing the underlying demographics of a society takes time: in particular, it takes longer (at least) than a single legislative cycle.[9]

[8] An example of this is Margaret Thatcher's controversial 'right-to-buy' policy, in the 1980s.

[9] For example, Glaeser and Schleifer (2005) document the process by which James Curley, Irish Bostonion politician, attempted to replace the predominantly English Bostonion population with the Irish, a process that succeeded over the course of fifty years.

4. A Single Date

Suppose that the game lasts only one date, or alternatively that politicians are wholly impatient ($\delta = 0$), or that there are no future opportunities to revise policy decisions taken today. Then, the optimal proposal moves policy as close as possible to the proposer's ideal point, subject to making the moderate restrainer no worse off than she would be under the status quo. This implies that the radical proposer with ideal policy $-e$ offers $y_1(s_1, -e) = -s_1$, since this makes the moderate restrainer indifferent between accepting and rejecting. Similarly, the optimal proposal of the reactionary with ideal policy e is $y_1(s_1, e) = s_1$. Thus, each proposer moves policy as close as possible to her ideal policy. For the radical, this implies reforming as much as possible. For the reactionary, it implies no reform, whatsoever.

5. Two Dates

Date Two Proposals

We now consider the case in which policy can be amended at each date, and that agents care about the future ($\delta > 0$). In the second date, the status quo policy is s_2, which is the policy that was implemented in the previous period. The optimal proposals can be written as a function of the ideal policy of the legislative proposer (p_2), the realized restrainer (r_2) and s_2, the second date status quo: $y_2^*(p_2, r_2, s_2)$. The restrainer will accept any policy which is closer to her ideal policy than the status quo.

Suppose, first, that the radical proposer with ideal policy $-e$ holds proposal power at date two. If the restrainer holds ideal policy $r_2 \geq s_2$, she will veto any proposal which moves the policy outcome further towards the radical's ideal. On the other hand, the radical proposer would not wish to move policy in the opposite direction, and so can do no better than propose the status quo.

Suppose, instead, that the restrainer has ideal policy $r_2 < s_2$. Then, the radical proposer will wish to move policy as close to her ideal point as possible, whilst ensuring acceptance by the restrainer. Because agents' loss is symmetric around their ideal policies, and incorporating our parameter restrictions, the proposal which achieves this objective rotates the status quo around the restrainer's ideal policy so that $s_2 - r_2 = r_2 - y_2$, or $y_2 = 2r_2 - s_2$. Thus, we obtain the optimal policy of the proposer with ideal policy $-e$, given the ideology of the restrainer (r_2) and the status

quo (s_2):

$$y_2^*(-e, r_2, s_2) = \begin{cases} s_2 & \text{if } s_2 \leq r_2 \\ s_2 - 2(s_2 - r_2) & \text{if } s_2 > r_2 \end{cases} \tag{1}$$

A similar logic operates with respect to the optimal policy of the reactionary proposer with ideology e:

$$y_2^*(e, r_2, s_2) = \begin{cases} s_2 & \text{if } s_2 \geq r_2 \\ s_2 + 2(r_2 - s_2) & \text{if } s_2 < r_2 \end{cases} \tag{2}$$

Thus, the date two proposer will exploit the restrainer by moving policy in the proposer's desired direction to the maximal extent possible. Notice that each proposer's ability to move policy is increasing in the distance between the date two status quo and the restrainer's ideal policy, i.e. $|r_2 - s_2|$. It is this feature that will provide the proposer with incentives to compromise vis-a-vis her static payoff at date one in order to maximize her subsequent advantage at date two.

Date One Proposals: A Benchmark

We now study the optimal proposals in the first date. Recall that in our dynamic model, today's proposer and restrainer are uncertain about the identity of (i) tomorrow's proposer and (ii) tomorrow's restrainer. We begin by studying a context in which the moderate restrainer holds veto power at both dates. In addition to serving as a useful benchmark, it can also represent a setting in which a legislative chamber acts as the proposer, the president is the restrainer and only the legislative chamber faces an imminent midterm election.

At date one, the moderate restrainer will accept any proposal which is closer to her ideal policy than the status quo. This is not a consequence of our maintained assumption that the restrainer evaluates proposals according to her instantaneous payoff. On the contrary, for the special case in which she is certain to retain veto power, her acceptance strategy will be the same when she is dynamically sophisticated and therefore internalizes the long-run consequences of her acceptance decision at date one.[10]

For simplicity, we begin by considering the radical proposer's preferences over two alternative proposals which are symmetric around the moderate restrainer's ideal policy: $y \in [0, s_1]$ and $-y$.

[10] This can be verified by inspection of Lemma 3, in the part of the paper where we deal explicitly with a dynamically sophisticated restrainer.

If the radical proposes y, the moderate restrainer will accept further subsequent reform if the radical holds power at date two; if the radical proposes $-y$, the moderate restrainer will accept no further reform which moves policy towards the radical's ideal point. In fact, the latter will be reversed if the radical is replaced by the reactionary. Nonetheless, the radical strictly prefers the initial proposal $-y$ over y. The reason is simple: at date two, the induced distribution over policy outcomes is invariant to the choice of either policy: the radical will implement $-y$ and the reactionary will implement y. Thus, only instantaneous payoffs weigh on the proposer's choice over these alternatives. We conclude that the radical will always prefer to make a proposal $y_1 \leq 0$, and the reactionary will always make a proposal $y_1 \geq 0$, so long as either proposer is not wholly patient ($\delta < 1$).

Next, we consider each proposer's optimal trade-off conditional on her choice being drawn from the relevant subset of proposals. Her static incentive is to move policy as close as possible to her ideal point, subject to the approval of the restrainer. What are the long-term consequences? Catering to her instantaneous payoff also improves her long term outcome at date two if she is realized to be the proposer, since she can do no better than lock in her reform by maintaining the induced status quo. But the penalty from losing proposal power becomes increasingly severe, since the opposing proposer can revert the policy in her own favored direction by a distance of $2|y_1|$.

The payoff of the proposer with ideal point $p_1 = i$ who proposes policy y_1 can therefore be written:

$$u_i(y_1) + \delta \Pr(p_2 = -i) \left(u_i(-y_1) - u_i(y_1)\right) \tag{3}$$

where $\Pr(p_2 = -i)$ is the probability that the date 1 proposer cedes proposal authority to the opposing proposer at date two. We therefore obtain:

Proposition 1. If the moderate restrainer is certain to hold veto power at both dates, then an interior solution for the proposer with ideal policy $i \in \{-e, e\}$ satisfies:

$$y^*(i) = i \left(1 - 2\delta \Pr\left(p_2 = -i\right)\right) \tag{4}$$

The threat of ceding power in the future creates an incentive for *dynamic compromise*, which in the present environment induces policy moderation by both the radical and the reactionary. Nonetheless, dynamic compromise and policy moderation are distinct phenomena and we will show that they need not be related when the identity of the restrainer can change between dates.

Incentives to compromise weigh more heavily upon the proposer when her patience increases and her threat of replacement rises. This component is multiplied by two because each increment of

policy movement in her favored direction, today, results in twice as much of a subsequent reversal by the opposing proposer.

Notice that the proposer's trade-offs are both static and dynamic. Even if she cares only about the future, there is a tension between catering to her ideal policy and moderating her proposal. This is quite apparent in the present environment, but it will become a more subtle issue, later.

Date One Proposals: Full Model

We now study the optimal proposals in the first date when the identity of both the proposer and the restrainer may change across dates.

When the identity of the restrainer was fixed across dates, we showed that each proposer will always choose a policy which renders the moderate restrainer unwilling to accept further policy change in the proposer's favored direction. That is, the optimal proposal always renders the moderate restrainer exploitable only by the other proposer at date two.

When the identity of the restrainer can change, by contrast, each proposer faces a non-trivial decision about which of the set of restrainers she wishes to be partially aligned with her at date two. When the restraining voter is not dynamically sophisticated, the set of policies she will accept is $[-s_1, s_1]$. So, the proposer faces an initial decision about which side of the moderate voter's ideal policy to place her date one proposal.

For an arbitrary date two status quo, s_2, we define the set of 'reform-aligned' date two restrainers. This is the set of restrainer-types whose ideal policy lies between the radical's ideal point and the date two status quo. Membership of this set is endogenous to the choice of initial proposal since the date two status quo is the implemented policy from date one.

$$R(s_2) = \{r_2 \in \{-m, 0, m\} : r_2 \leq s_2\} \tag{5}$$

If the radical holds power and the restrainer is drawn from this set, at date two, policy will shift from s_2 to $s_2 - 2(s_2 - r_2)$. Note that the set of 'reactionary-aligned' restrainers is the complement of $R(s_2)$.

We can now identify the preferred policy of an agent with an arbitrary ideal policy i, at date 1. Her continuation payoff from an (accepted) policy y_1 can be written:

$$\begin{aligned} V_i(y_1) \equiv & \alpha \left[\sum_{r_2 \in R(y_1)} \Pr(r_2) u_i(y_1 - 2(y_1 - r_2)) + \sum_{r_2 \notin R(y_1)} \Pr(r_2) u_i(y_1) \right] \\ & \beta \left[\sum_{r_2 \notin R(y_1)} \Pr(r_2) u_i(y_1 + 2(r_2 - y_1)) + \sum_{r_2 \in R(y_1)} \Pr(r_2) u_i(y_1) \right] \end{aligned} \tag{6}$$

Tomorrow's proposer will be a radical with probability α. If she holds proposal power and the restrainer is exploitable, she will shift policy to the location $y_1 - 2(y_1 - r_2)$. If, instead, the restrainer cannot be exploited by the radical, the best that she can do is simply maintain the status quo.

With probability β, the proposer is instead a reactionary. If she can exploit the restrainer, she will move policy to the location $y_1 + 2(r_2 - y_1)$. Otherwise, she too will maintain the status quo. Note that we can re-write $V_i(y_i)$:

$$\begin{aligned} V_i(y_1) \equiv & -\alpha \left[\sum_{r_2 \in R(y_1)} \Pr(r_2)(2r_2 - i - y_1)^2 + \sum_{r_2 \notin R(y_1)} \Pr(r_2)(i - y_1)^2 \right] \\ & -\beta \left[\sum_{r_2 \notin R(y_1)} \Pr(r_2)(2r_2 - i - y_1)^2 + \sum_{r_2 \in R(y_1)} \Pr(r_2)(i - y_1)^2 \right] \end{aligned} \tag{7}$$

The location $2r_2 - i$ can be interpreted as agent i's date two 'pivot-adjusted' ideal policy, where the pivot is the location of the partially aligned restrainer. These pivot adjustments take into account the induced opportunity to move policy in the future when the restrainer and proposer are partially aligned, and allow us to express date two policy trade-offs in terms of the date one policy choice, y_1.

Under the supposition that the moderate restrainer evaluates proposal solely on their immediate payoff implications, the set of proposals that she will accept over the status quo is $[-s_1, s_1]$. Later, we consider a foresighted restrainer who understands both that she may not longer be able to constrain the proposer if she loses veto power and that the proposer may also change.

Thus, the optimal policy of an agent with ideology i solves:

$$\max_{y_1 \in [-s_1, s_1]} (1 - \delta) u_i(y_1) + \delta V_i(y_1) \tag{8}$$

Whilst the static incentives of the proposer are to move policy as close as possible to her ideal policy, our first Lemma identifies a trade-off with respect to the dynamic consequences for future reform.

Lemma 1. An optimal interior solution at date 1 for an agent with ideology i from amongst the set of proposals $y_1 \in [-s_1, s_1]$ satisfies:

$$\begin{aligned} y(i) = & (1 - \delta) i \\ & - \delta \left(i(\alpha - \beta) \left(\sum_{r_2 \in R(y(i))} \Pr(r_2) - \sum_{r_2 \notin R(y(i))} \Pr(r_2) \right) - 2 \left(\alpha \sum_{r_2 \in R(y(i))} \Pr(r_2) r_2 + \beta \sum_{r_2 \notin R(y(i))} \Pr(r_2) r_2 \right) \right) \end{aligned} \tag{9}$$

There are most two solutions satisfying (9) - one on each side of the moderate restrainer's ideal policy. This is because which of the restrainers will be aligned with each of the proposers under induced status quo y (i.e. membership of $R(y)$) changes as the proposal moves from $y_1 \geq 0$ to $y_1 < 0$. We henceforth refer to the interior solution of proposer i which induces the future alignment of the moderate with the reactionary as $l(i) \leq 0$, and the remaining interior solution which aligns the moderate with the radical as $r(i) \geq 0$.

To obtain the discounted part of (9), we apply a mean-variance decomposition to agent i's continuation payoff. We then obtain a discount-weighted, pivot-adjusted ideal policy which varies according to static and dynamic incentives. Moreover, dynamic incentives are themselves determined through two potentially competing channels. We refer to the first dynamic consideration as the *alignment* channel:

$$-i(\alpha - \beta)\left(\sum_{r_2 \in R(y(i))} \Pr(r_2) - \sum_{r_2 \notin R(y(i))} \Pr(r_2)\right) \tag{10}$$

and the second dynamic consideration as the *risk* channel:

$$2\alpha \sum_{r_2 \in R(y(i))} \Pr(r_2) r_2 + 2\beta \sum_{r_2 \notin R(y(i))} \Pr(r_2) r_2 \tag{11}$$

Both channels reflect the dynamic incentives of today's proposer to minimize her losses in the second period by her choice of initial proposal.

Alignment Channel. The initial proposal determines which of the possible future restrainers will be aligned with each of the possible future proposers. This is determined by which side of the moderate restrainer's ideal point the initial proposal is made. Conditional on this choice, however, the *degree* of alignment between the proposer and the restrainer depends on how much her initial policy caters to this restrainer's instantaneous payoff. As the proposer increasingly satiates a partially aligned restrainer's taste for movement away from the status quo, she weakens their endogenous alignment in the future. A compounding trade-off for today's proposer is that by moving policy towards her own ideal, she also raises the degree of alignment between restrainers and the proposer who would mutually prefer to move policy in the opposite direction.

How these concerns weigh on the proposer's initial proposal depends on her uncertainty about the holders of future proposal and veto power. The first term $\alpha - \beta$ captures the relative preponderance of the probability with which the radical will hold subsequent proposal power. The second

term:

$$\sum_{r_2 \in R(y(i))} \Pr(r_2) - \sum_{r_2 \notin R(y(i))} \Pr(r_2) \tag{12}$$

captures the relative preponderance of the probability with which a radical-aliged restrainer will hold veto power at date one. It is the *product* of these two factors, which is decisive: the prospective benefit to the radical from offering less initial reform in exchange for more strident future gains hinges on both (a) her likelihood of holding future proposal power and (b) the likelihood that a radical-aligned restrainer will hold future veto power. As these joint events become increasingly likely, the radical is incentivized through the alignment channel to offer *less* reform today in order to take advantage of her anticipated favorable future reform prospects. For the same reason, the reactionary is encouraged to concede ground today by offering initial reform: this partially satiates the desire of the radical-exploitable restrainer for change, and insures the reactionary against more dramatic losses in the future.

Suppose, instead, that the radical is relatively likely to hold power ($\alpha > \beta$) but the restraining voter is unlikely to be reactionary-exploitable (i.e. (12) is negative). This creates a strong prospect of policy inertia at date two, since a radical proposer will likely be forced to maintain the induced status quo. In this case, the radical is better off front-loading reform, and likewise the reactionary gains little from making initial concessions which are unlikely to be reversed.

Only the product of these factors is important for determining the sign of the alignment channel. So, for example, the radical prefers to hold back on initial reform if she is relatively likely to have a chance at reforming more dramatically in the future, *or* if the reactionary is relatively likely to have a chance to reverse it. In both cases, the opportunity cost of further reform, or the cost of counter-reform, increases in her initial choice of reform.

Finally, all of these effects become more powerful in the determination of the proposer's solution as her initial taste for reaction or reform increases (higher $|i|$).

Risk Channel. Agents are risk averse and they face aggregate uncertainty about the location of tomorrow's pivot locations. These pivot locations depend both upon who will hold proposal power and who will hold veto power. The expression (11) is the expected location of the date two pivot. Fixing the identity of the date two proposer, it consists of the expected location of the restrainer who is aligned with that proposer. Then, these locations are weighted by the probability that each of the respective proposers holds power. While the effect of the probability channel on an agent's favored proposal depends on her ideology, the risk channel affects all agents in the same way.

The tension between these two channels determines how changes in fundamentals affect optimal proposals.

Comparative Statics

To understand how each of the alignment and risk channels affect each proposer's policy, we begin by examining how changes in the uncertainty agents face over who will hold future proposal and veto power, as well as agents' ideologies, affect optimal proposals.

The effect of these changes may be either continuous, or discrete. The continuous changes arise from each proposer's trade-offs *conditional* on having chosen which of the future restrainers will be partially aligned with each of the future proposers. These trade-offs are summarized by the characterization in Lemma 1. However, the initial decision about which restrainer-proposer pairs should be partially aligned is a discrete one, and these trade-offs also vary with changes in fundamentals. We focus, first, on local comparative statics, before discussing some of the issues that can lead to 'jumps' in optimal proposals.[11]

We begin by asking how each proposer's optimal proposal changes locally when the distribution over tomorrow's possible restrainers shifts in favor of a restrainer who is partially aligned with the radical proposer. This is partly an endogenous consequence of the initial choice of proposal, since the alignment of the moderate restrainer depends on whether the initial proposal lies on the same or the opposite side of her ideal point to the status quo.

For an interior optimal policy $y(i)$ and any two distinct cumulative distributions over the set of future restrainers' ideologies, F and F', we say that F' is *more favorable to reform under* $y(i)$ than F if $f'(r) \geq f(r)$ if and only if $r \in R(y(i))$. That is to say: the new distribution increases the probability of a radical-aligned restrainer, at the expense of the remaining restrainers. [12]

Suppose that either proposer faces a change in the distribution over future restrainers which is more favorable to reform, relative to their current optimal proposal. For the sake of argument, sup-

[11] Local comparative statics are those in which an interior solution $l(i)$ or $r(i)$ changes with primitives, but where the new solution remains on the respective sub-interval $[-s_1, 0]$ or $[0, s_1]$.

[12] That $F \neq F'$ implies that the weak inequality in the definition is strict for at least one r_2. Note that this condition is stronger than requiring that F first-order stochastically dominate F'. To see this, suppose we initially have F uniform over all three restrainers. Now consider a distribution F' that assigns $f'(-m) = \frac{1}{3}$, $f'(0) = \frac{2}{3}$ and $f'(m) = 0$. Then, F first order stochastically dominates F', and F' is more favorable to reform than F under $y(i) \geq 0$ but F' is not more favorable to reform than F under $y(i) \leq 0$. However, if F' is more favorable to reform than F under $y(i) \geq 0$ or $y(i) \leq 0$, we can easily show that F first-order stochastically dominates F'.

pose that the new distribution places strictly higher probability on the realization of a progressive restrainer.

First - via the *alignment* channel - this increases the probability that the radical proposer will face an aligned restrainer, if she holds power; likewise, it lowers the probability that the reactionary will face an aligned restrainer if she holds power. Although these effects would seem to be complementary, we will see that the overall consequences on the alignment channel will depend on beliefs about which proposer will hold power in the future.

Second, the shift in the expected location of tomorrow's restrainer leads both proposer types to favor more reform at the outset. We characterize the conditions under which this leads both proposers' policies to move in the same or possibly in different directions.

Proposition 2. Suppose the distribution over future restrainers F' is more favorable to reform than F under proposal $y(i)$:

1. If the radical is relatively likely to hold proposal power at date one ($\alpha > \beta$), the reactionary proposer always offers more local initial reform under F' and the radical proposer offers less local initial reform under F' if and only she is sufficiently extreme (e sufficiently large)

2. If the reactionary is relatively likely to hold proposal power at date one ($\alpha \leq \beta$), the radical proposer always offers more local initial reform under F' and the radical proposer offers less local initial reform under F' if and only she is sufficiently extreme (e sufficiently large)

For concreteness, consider the problem faced by the radical proposer. The change in optimal policy which operates through the alignment channel takes the sign of:

$$e(\alpha - \beta) \sum_{r_2 \in R(y(i))} \big(f'(r_2) - f(r_2)\big) \tag{13}$$

The second bracketed term reflects the increased probability that a future radical proposer faces an (imperfectly) aligned restrainer. If the radical holds power in the future, she enjoys a greater degree of alignment with this restrainer if she delays reform, today. This creates an incentive for dynamic compromise. Suppose, instead, that she hands power to the reactionary proposer at date one. Then, tomorrow's restrainer is more likely to forestall any attempt by the reactionary to implement a reversal of today's reform. This reduces the risk faced by today's radical from going further towards her ideal policy at the outset.

The overall effect on the radical's optimal policy depends on the distribution over future holders of proposal power. If the radical is relatively likely to hold power ($\alpha > \beta$), the alignment channel

operates in favor of *less reform* today in order to raise the exploitability of an aligned restrainer whom she is now relatively more likely to face. If instead, the reactionary is relatively likely to hold power ($\alpha < \beta$), it is better to proceed with reform today, since subsequent opportunities to make further adjustments in *either* direction are unlikely to arise.

For the reactionary proposer, the same trade-offs dictate the extent of her dynamic compromise. If the radical is relatively likely to hold power ($\alpha > \beta$), the alignment channel favors *more reform* today, in order to lower the degree of alignment between the radical and the future restrainer. This response attenuates the risk of even more potent reform in the future. If, instead, the reactionary is relatively likely to hold power ($\alpha < \beta$), it is better not to make concessions today, since they are now less likely to be reversed in the future.

Consider, next, the change in the optimal policy which operates through the risk channel, which is proportional to:

$$\alpha \sum_{r_2 \in R(y(i))} \big(f'(r_2) - f(r_2)\big)\, r_2 + \beta \sum_{r_2 \notin R(y(i))} \big(f'(r_2) - f(r_2)\big)\, r_2 \leq 0 \tag{14}$$

which (a) affects both proposers' proposals in the same way regardless of ideology and (b) unambiguously favors more initial reform.

To see why this is the case, consider the problem faced by the radical proposer. If she does not modify her initial proposal, a more favorable distribution over restrainers simply increases her prospects of facing an aligned restrainer and thus achieving the greatest possible subsequent reform given her initial proposal, if she holds subsequent proposal power. Moreover, it makes her no worse off in situations where the restrainer is not aligned with her, and she does not hold power. Thus, her payoff from this new lottery increases.

Agents have concave utility, however. Consider the event in which tomorrow's restrainer is aligned with the radical - an event which now arises with higher probability after the change in uncertainty. If the radical proposer today makes a small adjustment of her proposal in favor of more initial reform, her marginal loss in a future state where she holds proposal power and faces an aligned restrainer is more than offset by her marginal gain in those states where the reactionary proposer holds proposal power and faces a radical-aligned restrainer and in which no further policy change can occur. Since the change in the distribution over restrainers has generated an additional surplus for the radical, evaluated at her old proposal, she responds by partially redistributing this surplus across each of the possible (more likely) future environments she might face. A similar logic induces the radical to reform more, initially.[13]

[13]To see that this argument is more general than quadratic loss, let $u_{-e}(y) \equiv u(y)$ be strictly concave and

So, for example, when the radical is likely to hold power at date two ($\alpha > \beta$) and the probability of a progressive restrainer at date two rises, both the alignment and risk channels lead the reactionary proposer to favor *more* initial reform. Since she faces a heightened risk of an aligned proposer and restrainer, the reactionary reforms today in order to drive a greater wedge between the radical and the progressive's long-term policy goals (*alignment*). Moreover, aggregate uncertainty has moved the expected location of tomorrow's pivot towards a more reform-friendly restrainer (*risk*). This latter effect also pushes the radical proposer to offer more reform. But, the increased probability of a progressive restrainer gives the radical proposer an incentive to increase the degree of her future alignment with this player by offering less reform today. So, for the radical, the alignment and risk channels operate in different directions.

Where the alignment and risk channels induce different responses for either proposer, the alignment channel dominates only if the proposer's ideology is sufficiently extreme (e sufficiently large) relative to the ideology of the progressive or conservative restrainers. That is, the latent conflict of interest between the partially aligned proposer and restrainer must be sufficiently large that the proposer's desire to increase this alignment through dynamic compromise dominates her desire to re-balance her risk trade-offs across each of the future proposer-restrainer constellations that might arise.

We have focused the above discussion on varying responses to changing uncertainty *across* proposers. However, these forces may also vary across each of the two locally optimal proposals by the *same* proposer. To see how these optimal responses depend on the initial discrete choice of the proposer about which of the future proposers to align with the moderate, consider a special case in which tomorrow's restrainer is certain to be a progressive or moderate. The optimal interior proposal of the radical which aligns her solely with the progressive is:

$$l(-e) = -e(1-\delta) + \delta e(\alpha - \beta)(2f(-m) - 1) - \delta 2\alpha f(-m)m \tag{17}$$

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continuously differentiable, let $f(-m) \equiv p$ and suppose $f(0) = 1 - p$ and $\alpha > \beta$. Consider an interior solution on $[0, s_1]$ ($\alpha > \beta$ is necessary for this to be true). The FOC is:

$$p = \frac{\alpha u'(-y^*) - \beta u'(y^*)}{u'(-y^*) - u'(-2m - y^*)} \frac{1}{\alpha} \tag{15}$$

The LHS clearly increases in p, but the RHS decreases in y if:

$$\underbrace{\left(u'(-2m-y^*) - u'(y^*)\right)}_{>0} \underbrace{\left(\alpha u''(y^*) + \beta u''(-y^*)\right)}_{<0} + \underbrace{\left(u''(-y^*) - u''(-2m-y^*)\right)}_{<0} \left(\alpha u'(-y^*) - \beta u'(y^*)\right) < 0 \tag{16}$$

where $(\alpha u'(-y^*) - \beta u'(y^*)) > 0$ so long as α is not too much larger than β, since concavity implies $|u'(-y^*)| < |u'(y^*)|$ for $y^* > 0$. Thus, y^* falls in p.

whereas her optimal proposal which aligns both the progressive and moderate restrainers with her is:

$$r(-e) = -e(1-\delta) + \delta e(\alpha - \beta) - \delta 2\alpha f(-m)m \tag{18}$$

Consider raising the probability of a progressive (raising $f(-m)$), which corresponds to a new distribution over restrainers which is more favorable to reform at proposal $l(-e)$, but not at $r(-e)$. This increases the relative value to the radical of increasing her endogenous alignment with the progressive restrainer through the alignment channel since her proposal does not align her with a future moderate. But the risk channel pushes in the opposite direction. If the preference intensity of the radical is sufficiently large (e large), the net effect is to increase incentives for dynamic compromise by inducing *less* initial reform.

Consider, instead, the consequence for the local solution $r(-e)$. Since this solution already aligns both of the possible future restrainers - both progressive *and* moderate - shifting mass between these restrainers has no consequence for the alignment channel. Instead, it solely operates through the risk channel, and leads to *more* initial reform.[14]

A complimentary set of trade-offs arises with changes in the distribution over future proposers. Suppose, then, that the probability of either proposer holding power in the future rises. The risk channel unambiguously resolves in one direction for both proposers, since it moves the expected pivot ideology towards one proposer's ideal point.

The implications on the probability channel depend on the proposer's prospect of facing an aligned restrainer. If she is relatively likely to face a partially aligned restrainer, the alignment channel calls on her to raise this degree of future alignment in order that she may extract even more surplus from this relationship. This pushes the radical to reform *less*, and the reactionary to reform *more*.

Suppose, instead, that the proposer whose chances of holding future power increase is relatively likely to face a restrainer who is not aligned with her, vis-a-vis the induced status quo. This increase in the probability of a mis-aligned proposer-restrainer pairing serves as a more effective bulwark against any further movement from the status quo in either direction. Since a future stalemate has become more likely, each proposer type prefers to cater more to her instantaneous interest. For the radical, this implies more reform and for the reactionary, it implies less. As before, the net effect depends on the latent conflict of interest between the proposer and her relatively aligned

[14]It is easy to verify that non-empty (and open) parameter sets support both $l(-e) \in (-s_1, 0)$ and $r(-e) \in (0, s_1)$, simultaneously, given the supposition $s_1 < e - 2m$.

restrainer.

Proposition 3. Suppose that the probability of a restrainer with ideal policy $i \in \{-e, e\}$ increases.

(i) If a restrainer with whom she is partially aligned is relatively likely to hold veto power, the proposer with ideology i at date one engages in more local dynamic compromise if and only if her ideological preferences are sufficiently strong. The proposer with the opposing ideology always engages in more local dynamic compromise at date one.

(i) Conversely, if a restrainer with whom she is partially aligned is relatively unlikely to hold veto power, the proposer with ideology i at date one engages in less local dynamic compromise. The proposer with the opposing ideology always engages in more local dynamic compromise at date one.

In summary: how optimal proposals vary with changes in uncertainty over either proposal or restrainer power depend on the *conjunction* of these distinct forms of uncertainty. Changes which increase the probability of an aligned proposer and veto player (relative to the initial proposal) induce both proposers to engage in more dynamic compromise through the alignment channel, which works in opposite directions for the radical and the reactionary. Since both proposers are affected in the same way through the risk channel, however, at least one proposer's optimal response will depend on how she trades off each of these two channels. This trade-off hinges on the strength of her underlying ideological taste relative to that of either the conservative or progressive restrainer.

We have shown that changes in uncertainty over which restrainer will hold power in the future may have ambiguous consequences for local changes in optimal proposals. Changes in the polarization of these agents, however, have unambiguous consequences, since polarization of the restrainers enters each proposer's solution solely through the risk channel. We show that increased polarization leads both proposers to adopt more initial reform if and only if the relative prospect of a progressive restrainer rather than a conservative restrainer outweighs the relative prospect of a reactionary proposer rather than a radical proposer.

Proposition 4. Increasing the polarization of the restrainers' ideological preferences leads both the radical and the reactionary proposer to offer *more* initial local reform if and only if:

$$\frac{\beta}{\alpha} \leq \frac{f(-m)}{f(m)} \tag{19}$$

For the sake of tractability, we use a single parameter (m) to summarize both the conservative and progressive restrainers' ideologies. Consider, however, a change in our environment by which solely the progressive restrainer becomes more ideologically extreme, i.e. her ideology moves towards the radical proposer's ideal policy, while all other ideologies are fixed. In that case, the trade-offs for the proposer closely resemble those associated with the effect of an increase in the probability of a progressive restrainer on the risk channel from our previous local comparative statics. The difference is that the increased surplus for the radical arises from her greater degree of inherent alignment with the progressive, rather than through a higher probability that the progressive holds power.

Thus, the consequence of increasing the polarization of both progressive and conservative restrainers (via m) will depend on the distribution of uncertainty over the proposers and the restrainers themselves. If the expected location of the subsequent pivot is closer to the progressive than the conservative, more polarization will induce more reform. Otherwise, it induces less. However, it affects both proposers' solutions symmetrically.

Finally, we consider the consequences of increasing agents' patience, or the polarization of proposers' ideological preferences. Making either proposer more polarized - by raising e - increases her instantaneous benefit from moving policy closer to her ideal point, and dynamically it operates solely through the alignment channel. Thus, more dynamic compromise follows only if the static and dynamic incentives are mis-aligned, and enough weight is placed on the future that the latter dominates. Thus, it will induce more dynamic compromise if and only if (a) the product of each component of the alignment channel is positive and (b) if players are sufficiently patient that dynamic incentives trump static incentives.

Proposition 5. There exists a degree of patience $\bar{\delta} < 1$ such that if and only if $\delta \geq \bar{\delta}$, increasing the polarization of the proposers' preferences (raising e) induces more initial local dynamic compromise if and only if

$$(\alpha - \beta)\left(\sum_{r_2 \in R(y(i))} \Pr(r_2) - \sum_{r_2 \notin R(y(i))} \Pr(r_2)\right) > 0 \tag{20}$$

Conversely, increasing the patience of the setter increases dynamic compromise only if the static and dynamic channels oppose one another, and in that case require a sufficient degree of ideological motivation on the part of the proposer for the dynamic incentive to win out. Recall that the risk channel is simply the expected location of the date two 'pivot': the restrainer around whose ideal point policy will be symmetrically rotated by one of the proposers.

Proposition 6. If the proposer becomes more concerned about the future and the expected location of the date two pivot is closer to the ideal policy of the opposing proposer than her own ideal policy, she always engages in more local dynamic compromise. Otherwise, she engages in more local dynamic compromise if and only if her ideological preferences are sufficiently strong.

Changes in tastes, uncertainty and concern for the future affect local comparative statics. But they also affect the discrete trade-offs associated with which restrainers each proposer wishes to (partially) align with herself, in the future. These discrete trade-offs exist only if both (i) the moderate restrainer does not hold veto power with probability zero at date two, and (ii) the moderate restrainer does not hold veto power with probability one at date two. If the first condition fails, the alignment of any future restrainers and proposers is constant for any initial proposal which is accepted by the initial moderate restrainer, and the local solutions coincide. If the second condition fails, Proposition 1 implies that each proposer always strictly prefers to choose a policy which does not align herself with the moderate restrainer.

Suppose, therefore, that there is a possible but not certain prospect that tomorrow's proposer will face a moderate restrainer again in the future. Changes in fundamentals which affect the alignment channel have consequences for each proposer's locally optimal initial proposal. We have shown that both the *sign* and *magnitude* of these changes depend on which of the future proposers the initial proposal aligns with the moderate restrainer. In turn, each proposer's local trade-offs over alignment and risk - and finally her value over the local solutions induced by these trade-offs - also vary at different rates with changes in fundamentals.

We begin by identifying conditions under which either proposer is indifferent between aligning the moderate restrainer with the radical versus the reactionary. Recall that we refer to proposer i's locally optimal proposal which aligns the future moderate restrainer with the radical as $r(i) \geq 0$, and the remaining locally optimal proposal $l(i) \leq 0$.

It turns out the proposer's indifference occurs when the two distinct optimal local solutions $l(i) < 0$ and $r(i) > 0$ are equidistant from the moderate's ideal point, rendering the moderate, herself, indifferent between them.

Lemma 2. The proposer with ideal point i is indifferent between an interior proposal which aligns the reactionary versus the radical with the moderate restrainer if and only if the moderate restrainer is indifferent between these proposals.

This result is true for across all static-dynamic trade-offs (i.e. it holds for all $\delta \in [0, 1]$), but we provide some intuition using the case in which the proposer cares only for the policy outcome at

date two. Letting $\Delta_i(y, y') \equiv u_i(y) - u_i(y')$, we can then write the difference between continuation payoffs from choose $r(i) > 0$ versus $l(i) < 0$, conditional on the moderate restrainer holding veto power:

$$\alpha\Delta_i(-r(i), l(i)) + \beta\Delta_i(r(i), -l(i)) \tag{21}$$

With probability α, the radical proposer will hold power at date two. If the induced status quo is $r(i)$, she will be able to move policy to $-r(i)$; if, instead, the induced status quo is $l(i)$, she will maintain this policy. Likewise, the reactionary proposer holds power with probability β; if the induced status quo is $r(i)$, the best she can do is maintain it. But if the induced status quo is instead $l(i)$, she will reverse this to $-l(i)$. The lemma states that each proposer is indifferent between aligning herself or the opposing proposer with the moderate if and only if the local reforms equalize the policy implications across each initial policy in the event that the moderate holds power. Note that there are two pairs of locally optimal interior solutions which can induce the indifference of the moderate: one in which $r(i)$ and $l(i)$ coincide, and one in which $r(i) = -l(i)$.

We focus our discussion of possible 'jumps' in optimal policies by exploring how changes in proposal power affect each proposer's preference for aligning herself with a future moderate restrainer. To focus on the within-period trade-offs, we concentrate the informal discussion on the case in which players care only about policy outcomes at date two. We show that discrete consequences of changes in the prospect of a radical proposer can be indexed by the likelihood ratio of a reactionary versus a radical proposer at date two. Moreover, there are three pertinent regions in which this likelihood ratio may take values.

Suppose, first, that the progressive restrainer is very much more likely to hold veto power at date two than a conservative restrainer, that is:

$$\frac{\Pr(\text{conservative restrainer})}{\Pr(\text{progressive restrainer})} \leq 1 - \frac{2m}{e}$$

If proposal power is initially fairly balanced - i.e. $\alpha > \beta$ but the difference is close to zero - the radical is initially nervous about the risk of proposal power switching to the reactionary proposer. In the likely event of a reactionary-progressive proposer-restrainer pairing, more dynamic compromise is more likely to result in date two policy outcomes getting 'stuck' at the induced status quo. So, she initially prefers to accelerate reform - and in the process align the moderate restrainer with the reactionary - rather than risk dynamic compromise which may ultimately not bear fruit.

As the radical's prospects for maintaining proposal power at date two increase (α rises), aligning herself with the moderate voter becomes more appealing: not only is a progressive restrainer relatively likely to hold veto power, but the radical is increasingly likely to find herself in a position

to profit from this distribution of veto power. We show that there is a critical threshold $\alpha^*(-e)$ at which the radical proposer's optimal proposal switches from an initial choice which does not align herself with the moderate to a proposal which achieves this.

Suppose, second, that the progressive restrainer is somewhat more likely to hold veto power at date two than conservative restrainer, that is:

$$1 - \frac{2m}{e} < \frac{\Pr(\text{conservative restrainer})}{\Pr(\text{progressive restrainer})} \leq 1$$

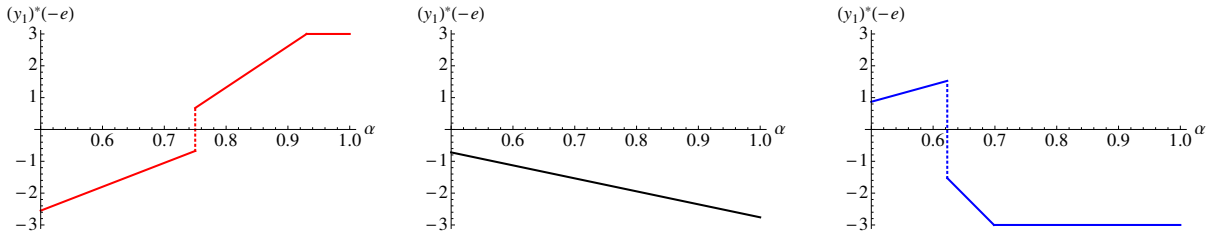
When the initial distribution of proposal power is evenly balanced, as in the previous case, the same incentives drive today's radical to favor accelerated early reform. However, the relative prospect of a progressive restrainer is no longer sufficient to outweigh the costs of getting stuck in the event that a conservative restrainer holds power, relative to the gains that arise from the progressive restrainer. These latter payoff gains are small relative to the former payoff costs as a consequence of players' concave loss. Thus, when the likelihood ratio of conservative restrainer versus a progressive restrainer is less than one but not too small, the radical will never alter her discrete choice about whether to align herself or the reactionary with the moderate, for any change in the distribution of proposal power. Instead, she always aligns the moderate with the reactionary by choosing an initial proposal to the left of the moderate's ideal point.

Suppose, finally, that the conservative restrainer is more likely to hold veto power at date two than the progressive restrainer, that is:

$$\frac{\Pr(\text{conservative restrainer})}{\Pr(\text{progressive restrainer})} \geq 1$$

If proposal power is initially fairly balanced - i.e. $\alpha > \beta$ but close to zero - the radical is initially nervous about the risk of proposal power switching to the reactionary proposer. But now, the reactionary proposer is also relatively likely to face the conservative restrainer, with whom she is partially aligned. So, the radical initially prefers to neutralize the reactionary's ability to affect a potent counter reform in the future by opting for the policy which aligns the moderate with the radical. That is, in contrast to the previous cases, relatively low prospects of holding future proposal power lead the radical to favor *more* dynamic compromise.

However, as the prospect of the radical holding power rises, the value of forestalling the reactionary falls. Moreover, the risk of the radical holding power and facing a conservative restrainer increases. We show that there is a critical threshold $\alpha^{**}(-e)$ at which the radical's discrete choice reverts from aligning herself with the moderate to instead accelerating reform as much as possible, in anticipation of gridlock at date two.



(a) $\frac{f(m)}{f(-m)} \leq 1 - \frac{2m}{e}$ (b) $1 - \frac{2m}{e} < \frac{f(m)}{f(-m)} \leq 1$ (c) $\frac{f(m)}{f(-m)} > 1$

Figure 2: How the radical's optimal date one proposal varies with higher prospects of holding proposal power at date two.

So, the consequence of changes in the distribution of proposal power for the discrete trade-offs faced by the proposer depend on (i) the distribution of uncertainty over future restrainers and (ii) the initial distribution of uncertainty over future proposers. We summarize this points in the next Proposition. Let $y^*(i)$ denote the interior solution $l(i)$ or $r(i)$ which maximizes the proposer's date one payoff. Since we can only have $l(-e) < r(-e)$ if the radical is relatively likely to hold power ($\alpha > \beta$) we focus on that case when analyzing jumps.

Proposition 7. Suppose that the radical proposer is relatively likely to hold power ($\alpha > \beta$). If the proposer is sufficiently patient, there exist thresholds $\alpha^*(-e), \alpha^{**}(-e) \in \left(\frac{1}{2}, 1\right]$ such that:

1. if the progressive restrainer is very much more likely to hold veto power at date two than a conservative restrainer:

$$y^*(-e) \begin{cases} < 0 & \text{if } \alpha \leq \alpha^*(-e) \\ > 0 & \text{if } \alpha > \alpha^*(-e) \end{cases} \tag{22}$$

2. if the progressive restrainer is somewhat more likely to hold veto power at date two than a conservative restrainer: $y^*(-e) < 0$, always; and,

3. if the conservative restrainer is more likely to hold veto power at date two than a conservative restrainer:

$$y^*(-e) \begin{cases} > 0 & \text{if } \alpha \leq \alpha^{**}(-e) \\ < 0 & \text{if } \alpha > \alpha^{**}(-e) \end{cases} \tag{23}$$

Note that a converse result can be obtained for the reactionary proposer, and we analyze this case in the Appendix. Figure 2 illustrates the radical's (globally) optimal proposal for a set of

benchmark parameters.[15] Notice the possibility of non-monotonicity: in the third panel, raising the prospect of a radical initially induces less reform from the radical. At the critical threshold $a^{**}(-e)$, the optimal proposal jumps, and subsequent responses to a higher prospect of holding power lead the radical to favor more initial reform.

These comparative statics can generate predictions about the behavior of the proposer at different points in the legislative cycle. For example, suppose that the proposer is the president and the restrainer is the median of the lower legislative chamber. Suppose, moreover, that elections are staggered. In an 'on year' in which both offices must be filled, it may be likely that the post-election ideology of both office holders will be aligned. In that case, immediately before the election takes place, our model predicts more dynamic compromise on the part of today's proposer. At a mid-term election, by contrast, the identity of the proposer is fixed and only the identity of the restrainer can change. If, as is common, the president's party is likely to suffer in the mid-term, our model predicts that the proposer before the election should be more aggressive in catering to her short-term policy interest.

This prediction appears to be consistent with the behavior of the Democrats during their limited period of unified government from 2009 until 2011. The 111$^{\text{th}}$ Congress was "one of the three most productive Congresses" since 1900, passing "more landmark legislation than any since the era of Lyndon Johnson's 'Great Society'."[16] Particularly in the wake of the 2010 mid-terms, the Democrats "squeezed through a raft of priorities"[17], including lifting a ban on homosexual men and women serving openly in the military, and approving the New Start arms control treaty with Russia. According to *The Washington Post*, the avowed Democrat strategy was to "play the 'long game'... [by] writing their agenda into law" in anticipation of an imminent and near-certain switch in control of the House.

A second application of our comparative statics results is that we can ask how more 'moderate' beliefs about the anticipated ideology of the date two restrainer affect both the short- and (expected) long-term polarization of proposals. Specifically, we ask: suppose that today's proposer places more probability on tomorrow's restrainer being moderate rather than a progressive or a conservative, whilst keeping the expected restrainer's ideology fixed. How does this affect the relative polarization of her initial proposal, and with what consequences for the long-term distribution

[15] For all three figures, we use $\delta = 1$, $e = 9$ and $m = 3$. In (a) $\frac{f(m)}{f(-m)} = 0$, in (b) $\frac{f(m)}{f(-m)} = \frac{7}{13}$, and in (c) $\frac{f(m)}{f(-m)} = \frac{9213}{2800}$.

[16] "Lame-duck session of Congress most productive in decades", *Washington Post*, 12/26/2010

[17] "111$^{\text{th}}$ Congress, One for the History Books", *New York Times*, 12/22/2010

over policy outcomes? We have already seen that when tomorrow's restrainer is *certain* to be moderate, dynamic compromise necessarily pushes both the date one and date two policies closer to the moderate restrainer's ideal point.

To see that moderation via primitives need not imply that policy moderation occurs in the short- or long-run, consider an initial distribution of uncertainty over the date two restrainer, F, such that the moderate restrainer is not certain to hold veto power, but hers is the expected ideal point of the date two restrainer, i.e. $f(0) < 1$ and $\mathbb{E}_f(r_2) = 0$. Now consider another distribution F' which represents a mean preserving contraction of the initial distribution, i.e. it shift mass towards the moderate restrainer, whilst preserving her ideal point as the expected location of tomorrow's restrainer: $\mathbb{E}_{f'}(r_2) = 0$. Does this imply that either today's policy outcome, or tomorrow's anticipated policy outcome, becomes more moderate?

The answer is no. Suppose that the radical is relatively likely to hold power ($\alpha > \beta$): this implies that she always prefers a policy which does not align the moderate voter with herself in the future.[18] As the prospect of a moderate voter rises, the radical proposer today anticipates that she will face ever-diminishing opportunities in the future to benefit from prospective alignment with tomorrow's restrainer. The alignment channel therefore pushes her to offer a more radical initial proposal. Moreover, the risk channel works in concert with the alignment channel because the radical is relatively likely to hold proposal power so that even if the unconditional expected location of tomorrow's restrainer remains centered at zero, the location of the expected *pivot* restrainer shifts towards the progressive restrainer's ideal point. Thus, the initial proposal becomes unambiguously more radical as a consequence.

What of the expected policy outcome at date two? The *direct* effect of a higher prospect of facing a moderate restrainer - given a fixed initial policy choice by the radical proposer - is to bring the expected policy outcome at date two closer to the moderate restrainer's ideal point. But there is an *indirect* effect in the form of the radical proposer's strategic response, via her choice of a more radical initial proposal. To the extent that the radical proposer is relatively likely to retain power, it is now more likely that this more radical induced status quo will be the outcome, once again. So, if the radical is sufficiently likely to hold proposal power, the prospect of future moderation in the distribution of restrainers can be a force for more extreme policy outcomes both in the short- and long-run.

[18] If $\mathbb{E}_f(r_2) = 0$, we must have $f(-m) = f(m)$ given symmetry of the ideal points of the conservative and the restrainer. This implies that we are in region 2. of the previous proposition. Of course, the argument more generally does not require symmetry.

We close by illustrating the possibility that dynamic compromise may lead a reactionary proposer to adopt more short-term reform than the radical. A sufficient set of conditions for this to arise is that (i) the radical proposer is relatively likely to hold proposal in the future and (ii) the progressive restrainer is relatively likely to hold veto power in the future.

Proposition 8. If, at date two, the radical proposer is relatively likely to hold power ($\alpha > \beta$) and the progressive restrainer is sufficiently likely to be leftist ($\Pr(r_2 = -m) \geq \frac{1}{2}$) then there exists a degree of patience, $\delta^* < 1$ such that: if $\delta \geq \delta^*$, the reactionary proposer successfully proposes more reform at date one than the radical proposer.

In the event that the agents who are (primitively) favorable to reform are sufficiently likely to enjoy both proposal and veto power at date two, it is valuable for a radical proposer at date one to 'step back' in order to 'leap forward more vigorously' at date two. For the same reason, the reactionary proposer at date one prefers to offer incremental reform in order to forestall a wave of even more potent reform in the future.

This result can illuminate a range of contemporary and historical examples in which politicians do indeed appear to advocate or oppose policies which do not cater to their contemporaneous interests.

We earlier elaborated an attempt in 1969 to reform the House of Lords by the British Labour government that was vanquished, in part, by opposition from within the Labour party. Strikingly, it was a Conservative government more than ten years earlier which implemented the *Life Peerages Act of 1958*. This Act allowed individuals who did not hold hereditary peerages to become members of the House of Lords by appointment.[19] It also allowed for the creation of female peers who would be entitled to sit in the House of Lords, for the first time. It was bitterly opposed by the Labour party leadership, embodied in Hugh Gaitskell's accusation during the bill's debate:

> "[t]he Bill is not really a reform Bill, as we see it.... It leaves the present powers of the House of Lords unchanged and it gives, conveniently, an apparently slightly more respectable appearance to the House of Lords. We are opposed to a cloak of respectability put upon a person when the reality is quite unchanged."[20]

Subsequent retrospection by the Conservative party supports at least the spirit of Gaitskell's objection. Writing a policy briefing to his fellow parliamentarians in 1998, Conservative Member of

[19] Law Lords were previously the only class of non-hereditary peers.

[20] HC Deb 12 February 1958 vol 582, c 423

Parliament Andrew Tyrie argued: "It was Conservative reforms of the late 1950s and early 1960s which... modernised the Lords enough to protect it from those who wanted it abolished" (Tyrie, 1998, ii). In this policy context, the forces identified in Proposition 8 appear to be quite relevant.

We close this section with two comments regarding directions in which our model can be generalized, and key assumptions relaxed. First, it is straightforward to add more potential restrainers into the model: for example, our characterizations of locally optimal proposals remain valid, but there will be more of these policies for each of the relevant sub-intervals. Moreover, we no longer need our assumption that each proposer is sufficiently mis-aligned with *all* of the restrainers (recall our assumption that $e - m > m - s_1$). Instead, it may be that there are some restrainers and date two status quo policies which would allow a date two proposer to achieve her ideal point. In these cases, there are no marginal dynamic trade-offs arising from small changes in proposals at date one. But so long as there exist some restrainers (for example, the most moderate) for which the conflict of interest between themselves and the proposers is sufficiently large, the dynamic trade-offs we identify will persist.

We can similarly allow for an expanded set of proposers. In particular, we could allow for the existence of a 'moderate' proposer whose ideal point, for example, coincides with the ideal policy of the moderate restrainer. Suppose that this moderate proposer holds proposal power at date two. Then, so long as this proposer is aligned with the date two restrainer, she will be able to implement her ideal point regardless of the precise location of the date two status quo. As in the previous paragraph, conditional on the realization of this proposer and an aligned restrainer, there are no marginal dynamic trade-offs for *any* date one proposer associated with local changes in policy: they will all result in the same date two outcome. However, this raises no conceptual difficulties: the strategic forces we identify conditional on not realizing a moderate proposer will remain. So long as the prospect of such a moderate restrainer is not overwhelming, relative to more polarized restrainers, our qualitative results will continue to hold.

6. A Dynamically Sophisticated Restrainer

To this point, we have focused on the strategic aspects of the proposer's problem, under the supposition that the restrainer evaluates proposals solely according to their consequences for her instantaneous payoff at date one. This enabled a simple characterization of the set of proposals preferred by the restrainer to the status quo, and greatly simplified the exposition.

Particularly in the case where the restrainer is thought to be a pivotal legislator, however, it

may be more natural to afford her the same level of dynamic sophistication as the proposer. How are our results affected by making the restrainer evaluate proposals relative to the status quo based not only on her current payoff, but her future payoff? To keep the analysis tractable, we focus on two pertinent contexts: one in which the date two restrainer is certain to be either progressive or moderate, and one in which the date two restrainer is certain to be either moderate or conservative. We confine the latter analysis to the Appendix, since the key intuitions are quite similar across the cases.

Since date two trade-offs are the same for the restrainer in both the dynamic and myopic case, we focus our analysis on date one trade-offs. We begin by showing that, at date one, there are policies which the moderate restrainer (a) accepts when she is dynamically sophisticated which she would reject if she were myopic, and (b) rejects when she is dynamically sophisticated which she would accept if she were myopic. Recall that in the myopic case, she accepts any policy that giver her a higher instantaneous payoff to the status quo, i.e. any policy which lies in the interval $[-s_1, s_1]$.

Suppose, then, that the date two restrainer is certain to be progressive or moderate. Now, today's moderate restrainer internalizes the dynamic benefit from policies which restrict the scope for future movement away from her ideal point. Since either she or the progressive will hold power, she is especially concerned about the risk of a radical-progressive axis.

Our first observation is that the dynamically sophisticated moderate will continue to prefer policies on the interval $[-s_1, s_1]$ to the status quo. The reasons are two-fold. First, she enjoys a higher stage payoff from such a policy vis-a-vis the status quo. Second, her dynamic benefit is also greater: in the event that she is tomorrow's restrainer, or tomorrow's proposer is reactionary, the moderate will be no worse off than she would be with the induced status quo than she would be with the initial status quo. And, in the event of a radical-progressive proposer-restrainer pairing, the ability of the radical to exploit the progressive will be diminished with the induced status quo, relative to the initial status quo.

There are also now polices which lie between the ideal point of the progressive $(-m)$ and the platform $-s_1$ which the moderate restrainer at date one will accept over the status quo. This a consequence of the same logic developed in the previous paragraph, and arises despite the fact that such polices give the moderate restrainer a lower stage payoff than the status quo.

In fact, there may even exist policies which lie between the ideal point of the radical proposer $(-e)$ and the progressive restrainer $(-m)$ which would now be accepted by the moderate restrainer at date one, over the status quo. This is because a date two status quo which lies on this interval

guarantees that no further movement in the direction of the radical proposer's ideal point can take place at date two. That is: the moderate proposer at date one would implicitly collude in an effort to wholly neutralize the ability of the radical proposer to exploit the progressive restrainer, at date two.

Lemma 3. If the date two restrainer is certain to be either progressive or moderate, then the dynamically sophisticated moderate restrainer at date one prefers the following policies to the initial status quo, s_1:

$$y_1 \in [\max\{-m, -s_1 + \delta 4\alpha \mathbb{E}[r_2 \leq 0]\}, s_1] \tag{24}$$

Moreover, there may exist $\underline{y} > -e$ and $\bar{y} < -m$ such that the dynamically sophisticated moderate restrainer at date prefers any policy $y_1 \in \left[\underline{y}, \bar{y}\right]$ over the initial status quo.

The willingness of the dynamically sophisticated moderate restrainer to accept policies which give her a lower instantaneous payoff than the initial status quo is proportional to her concern for the future (δ), the risk of date two radical proposer (α), and the conjunction of (a) the risk of a progressive restrainer and (b) her ideological alignment with the radical proposer.

Notice that our earlier characterizations of locally optimal proposals remain valid in the present environment. However, the set of discrete choices about future proposer-restrainer alignment which are available the date one proposer potentially expands in the case of a dynamically sophisticated restrainer. Recall our earlier result which showed that when the prospect of a radical proposer and a progressive restrainer is sufficiently large, the radical proposes less reform in the short-run than a reactionary. This result was obtained under the supposition of a myopic moderate restrainer, however.

Suppose that the probability of a radical-progressive pairing is sufficiently large that the dynamically sophisticated moderate restrainer would be prepared to accept some proposals which lie between the radical's ideal point ($-e$) and the moderate's ideal point ($-m$). Consider the locally optimal proposal of each proposer on this sub-interval.

If the proposer is a radical and sufficiently confident about her prospects of holding proposal power, her optimal proposal on this sub-interval is to move policy *as close* as close as possible to her ideal point, consistent with gaining the initial acceptance of the moderate. This is because there is no subsequent prospect of further reform: her initial proposal renders her mis-aligned with each possible restrainer in the future. Indeed, this may also represent her global solution, to the extent that she prefers to take advantage of the moderate proposer's initial fear of her long-term prospects, rather than lean on these latent prospects indirectly by engaging in dynamic compromise.

By contrast, if the proposer is a reactionary and sufficiently fearful of a radical-progressive axis, she will prefer the policy on this interval which is closest to her own ideal point, subject to rendering the radical misaligned with the progressive. Thus, a very high prospect of a radical-progressive pairing may no longer imply that the radical adopts less reform in the short-run than the reactionary.

The possibility of a radical choosing less reform in the short-run than the reactionary can still arise, but it requires the the prospect of the radical holding proposal power to be large enough, but not too large to trigger the above effects.

Proposition 9. Suppose that at date two, the progressive restrainer is relatively likely to hold veto power ($f(-m) > \frac{1}{2}$). Then, if and only if the radical proposer is relatively likely, but not too likely, to hold proposal power - that is, $\alpha \in \left(\frac{1}{2}, \frac{1}{2} + \frac{m}{2e}\right)$ - then if agents are sufficiently patient, the optimal proposal of the reactionary proposer induces more initial reform of the status quo than the optimal proposal of the radical proposer.

The requisite upper bound probability of a radical proposer rises as the progressive restrainer becomes more (primitively) aligned with the radical (larger $\frac{m}{e}$) since this allows the radical restrainer to achieve more extreme policies for any induced status quo at date two.

We show, finally, that when the moderate restrainer is dynamically sophisticated, circumstances arise in which the radical proposer may be prepared and able to move the initial status quo in the direction of the reactionary proposer's ideal point. This arises when both she and the initial moderate restrainer fear the prospect of an implicit future alliance between the reactionary proposer and the conservative restrainer.

Proposition 10. Suppose that the date two restrainer is certain to be a moderate or a conservative.

1. If the initial status quo is sufficiently close to the ideal policy of the moderate restrainer ($s_1 \leq 2\beta\mathbb{E}[r_2 \geq 0]$) and agents are sufficiently patient, the radical proposer at date one proposes a policy which lies between the status quo and the reactionary proposer's ideal point.

2. If, instead, the initial status quo is far from the ideal policy of the moderate restrainer ($s_1 > 2\beta\mathbb{E}[r_2 \geq 0]$), then: if agents are sufficiently patient and a reactionary-conservative pairing is relatively likely, then there exists a degree of ideological polarization, $\bar{e}$, such that

if $e \geq \bar{e}$ the radical proposer proposes a policy which lies between the status quo and the reactionary proposer's ideal point.

Proposition 10 may help to explain the widely documented phenomenon that left-wing governments have been as likely as their right-wing counterparts to implement programs privatizing state-owned industries, or engage in deficit-cutting and other pro-market reforms (see, for example, Alesina, Ardagna and Trebbi (2006) and Roland (2008)). A prominent explanation, due to Cukierman and Tommasi (1998), is that politicians have private information about the necessity of these polices. In such an environment, left-wing parties can more credibly appeal to the necessity of these policies than can their right-wing opponents. This is because the ideological proclivity of left-wing parties renders them intrinsically more hostile to these policies, regardless of fundamentals. Though we also lean on the *ceteris paribus* hostility of the radical to the status quo as a source of 'reversals', the only uncertainty in our model concerns who holds power in the future.

7. Conclusion

When today's officeholders take into account the long-term consequences of their policies, they may implement policies which contradict their short-run interest. This simple idea carries a number of important implications for the optimal reform agenda of agents who are both (fundamentally) favorable to reform, as well as those who oppose it.

We unearth circumstances in which radical reform advocates may prefer less reform in the short-run than would long-term reform opponents. Our comparative statics also illustrate cases in which the prospect of more moderate agents holding power in the future serves to exacerbate the polarization of both short-term and expected long-term policy outcomes. Our results can illuminate a range of contemporary and historical examples in which politicians do indeed appear to advocate or oppose policies which do not cater to their contemporaneous interests.

Although our interpretation and illustrations of the political context have primarily been legislative, the dynamic trade-offs we uncover have more general significance. In her study of social movements, Gupta (2009) argues that incremental victories can have unintended consequences for movements' ability to mobilize human and financial resources in the future. She finds: "on the one hand, movements seek to make incremental gains in advancing their larger policy agenda; at the same time, this success carries a risk of long-term movement decline, as it can... enervate programmatic activity as continued gains potentially diminish the urgency of the issue or the demonstrable

need for greater activism".[21] She continues: "incremental gains produce a sense of satiety among less committed movement backers and activists... In other words, success can be a bit of a poisoned chalice to groups if their demonstrated ability to achieve good outcomes leads to subsequent attrition in support levels".[22] In the legal context, Schraub (2013) uncovers a so-called "sticky slope", in which "... the achievement of one victory makes it more difficult for the movement to attain others - where a victory at one stage helps presage a defeat at another".[23] He uncovers a host of prominent examples from American legal history in which minority groups, in particular, appear to have been the victim of these forces.

Throughout, we have assumed that the distribution of future office-holders is unaffected by the policy which is implemented at date one. As we noted earlier, this is a reasonable assumption in some policy contexts and is certainly plausible in the short-run. In other settings and especially over the long-run, however, the two are certainly related. We leave this exciting avenue for future work.

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8. Appendix

Proof of Proposition 2

Fix a locally optimal interior proposal $y(i)$ satisfying the characterization of Lemma 1, and a distribution function over the set of date two restrainers F. We index this interior proposal $y_F(i)$. Now consider a distribution function F' which is more favorable to reform under $y_F(i)$ than F and suppose that $y_{F'}(i)$ is a locally optimal proposal under F' satisfying $R(y_F(i)) = R(y_{F'}(i)) \equiv R$.

Then, we have:

$$\operatorname{sgn}\left(y_{F'}(i) - y_F(i)\right) \tag{25}$$

$$= \operatorname{sgn}\left[i\left(\alpha - \beta\right) \sum_{r_2 \in R} \left(f(r_2) - f'(r_2)\right) + \alpha \sum_{r_2 \in R} \left(f'(r_2) - f(r_2)\right) r_2 + \beta \sum_{r_2 \notin R} \left(f'(r_2) - f(r_2)\right) r_2 \right] \tag{26}$$

The sign through the expectations channel is unambiguously negative. Since $r_2 \in R$ implies $f(r_2) - f'(r_2) < 0$, we therefore have $\operatorname{sgn}\left(y_{F'}(i) - y_F(i)\right) < 0$ if $i(\alpha - \beta) \geq 0$. If, instead, $i(\alpha - \beta) < 0$, we have $\operatorname{sgn}\left(y_{F'}(i) - y_F(i)\right) > 0$ if and only if $|i|$ is sufficiently large. The proposition follows, immediately.

Proof of Proposition 3

Fix a locally optimal proposal $y_\alpha(i)$, where we index this by the distribution function over the set of date two proposers summarized by α. We then have:

$$\operatorname{sgn}\left(\frac{\partial y_\alpha(i)}{\partial \alpha}\right) = \operatorname{sgn}\left[-i\left(2 \sum_{r_2 \in R(y_\alpha(i))} f(r_2) - 1 \right) - m(1 - f(0)) \right] \tag{27}$$

Then, there exists $\bar{e}$ such that:

$$\frac{\partial y_\alpha(-e)}{\partial \alpha} \begin{cases} < 0 & \text{if } \sum_{r_2 \in R(y_\alpha(i))} f(r_2) \leq \frac{1}{2} \text{ or } e \leq \bar{e} \\ > 0 & \text{if } \sum_{r_2 \in R(y_\alpha(i))} f(r_2) > \frac{1}{2} \text{ and } e \geq \bar{e} \end{cases} \tag{28}$$

and:

$$\frac{\partial y_\alpha(e)}{\partial \alpha} \begin{cases} < 0 & \text{if } \sum_{r_2 \in R(y_\alpha(i))} f(r_2) \geq \frac{1}{2} \text{ or } e < \bar{e} \\ > 0 & \text{if } \sum_{r_2 \in R(y_\alpha(i))} f(r_2) < \frac{1}{2} \text{ and } e \geq \bar{e} \end{cases} \tag{29}$$

The proposition is an immediate consequence.

Proof of Proposition 4

Differentiating $y(i)$ with respect to m yields:

$$\frac{1}{2\delta} \frac{\partial y(i)}{\partial m} = -\alpha f(-m) + \beta f(m) \tag{30}$$

from which the result is immediate.

Proof of Proposition 5

We have:

$$\operatorname{sgn}\left(\frac{\partial y(i)}{\partial |i|}\right) = \operatorname{sgn}(i)\left(1-\delta\left(1+(\alpha-\beta)\left(\sum_{r_2\in R(y(i))}\Pr(r_2)-\sum_{r_2\notin R(y(i))}\Pr(r_2)\right)\right)\right) \tag{31}$$

If $(\alpha-\beta)(2\Pr(r_2\in R(y(i)))-1)\leq 0$, then $\operatorname{sgn}\left(\frac{\partial y(i)}{\partial i}\right)=\operatorname{sgn}(i)$. If, instead, $(\alpha-\beta)(2\Pr(r_2\in R(y(i)))-1)>0$, we have $\operatorname{sgn}\left(\frac{\partial y(i)}{\partial i}|_{\delta=0}\right)=\operatorname{sgn}(i)$ and $\operatorname{sgn}\left(\frac{\partial y(i)}{\partial i}|_{\delta=1}\right)=-\operatorname{sgn}(i)$. So, linearity in δ implies that there exists $\bar{\delta}<1$ such that

$$\operatorname{sgn}\left(\frac{\partial y(i)}{\partial |i|}\right) = \begin{cases} \operatorname{sgn}(i) & \text{if } \delta\leq\bar{\delta} \\ -\operatorname{sgn}(i) & \text{if } \delta>\bar{\delta} \end{cases} \tag{32}$$

and the proposition is an immediate consequence.

Proof of Proposition 6

We have:

$$\frac{\partial y(i)}{\partial \delta} = -i\left(1+(\alpha-\beta)\left(\sum_{r_2\in R(y(i))}\Pr(r_2)-\sum_{r_2\notin R(y(i))}\Pr(r_2)\right)\right)+2\theta \tag{33}$$

where $\theta\equiv\alpha\sum_{r_2\in R(y(i))}\Pr(r_2)r_2+\beta\sum_{r_2\notin R(y(i))}\Pr(r_2)$. This implies:

$$\operatorname{sgn}\left(\frac{\partial y(i)}{\partial \delta}\right)=\operatorname{sgn}(-i\lambda+2\theta) \tag{34}$$

where $\lambda\in[0,2]$ and $\theta\in[-m,m]$. So, if $i\theta\leq 0$, $\operatorname{sgn}\left(\frac{\partial y(i)}{\partial \delta}\right)=-\operatorname{sgn}(i)$. If, instead $i\theta>0$, we have $\operatorname{sgn}\left(\frac{\partial y(i)}{\partial \delta}\right)=-\operatorname{sgn}(i)$ if and only if $|i|$ is sufficiently large.

Proof of Lemma 2

We define the payoff difference function:

$$Z(i)\equiv(1-\delta)(u_i(r(i))-u_i(l(i))+\delta\left(V_i(r(i))-V_i(l(i))\right) \tag{35}$$

We observe that $Z(i)$ can be written $(r(i)-l(i))(r(i)+l(i))$ which has two roots at $r(i)=l(i)$ and $r(i)=-l(i)$. In both cases, the moderate restrainer is indifferent between these proposals. However, since $l(i)$ is interior only if $l(i)\leq 0$ and $r(i)$ is interior only if $r(i)\geq 0$, we have $r(i)=l(i)$ only if $r(i)=l(i)=0$.

Proof of Proposition 7

We note that $Z(i)$ has roots at $r(i) = l(i)$ and $r(i) = -l(i)$. We have $r(i) = l(i)$, $r(i) \geq 0$, $l(i) \leq 0$ only if either $\alpha = \beta$ or $f(0) = 0$. Since we are assuming $f(0) > 0$, this implies that $r(i) = l(i)$ if $\alpha = \beta$.

Since $r(i)$ and $l(i)$ are linear in α, there exists at most one remaining value of $\alpha \in [0, 1]$ at which $Z(i)$ attains zero. We have:

$$r(-e) + l(-e) = 2e\left(-1 + \delta\left((2\alpha - 1)(f(-m) - f(m)) + 1\right) - 2\delta m(f(-m)\alpha - (1-\alpha)f(m))\right) \tag{36}$$

This expression is linear in δ. Evaluated at $\delta = 0$, we have $r(-e) + l(-e) = -2e$. The expression is also linear in α. Then:

$$(r(-e) + l(-e))|_{\alpha=\frac{1}{2},\delta=1} = 2m(f(m) - f(-m)) \tag{37}$$

$$(r(-e) + l(-e))|_{\alpha=1,\delta=1} = 2e(f(-m) - f(m)) - 4mf(-m) \tag{38}$$

where we suppress references to other parameters for expositional simplicity. Suppose $(r(-e) + l(-e))|_{\alpha=\frac{1}{2},\delta=1} \geq 0$. Then, $\frac{f(m)}{f(-m)} \geq 1$. This implies $(r(-e) + l(-e))|_{\alpha=1,\delta=1} < 0$. Suppose, instead, $(r(-e) + l(-e))|_{\alpha=\frac{1}{2},\delta=1} < 0$. Then, $\frac{f(m)}{f(-m)} < 1$. So, $(r(-e) + l(-e))|_{\alpha=1,\delta=1} > 0$ only if $\frac{f(m)}{f(-m)} < 1 - \frac{2m}{e}$.

Although we do not state the corresponding proof for the reactionary proposer, we prove the corresponding cases, here. We have:

$$r(e) + l(e) = 2e\left(1 + (1 + (2\alpha - 1)(p - q))\,\delta\right) - 2m\delta\left(\alpha f(-m) - (1-\alpha)f(m)\right) \tag{39}$$

As before, the expression is linear in δ and evaluated at $\delta = 0$, we have $r(e) + l(e) = 2e > 0$. Then:

$$(r(e) + l(e))|_{\alpha=\frac{1}{2},\delta=1} = 2m(f(m) - f(-m)) \tag{40}$$

$$(r(e) + l(e))|_{\alpha=0,\delta=1} = 2e(f(-m) - f(m)) + 4mf(m) \tag{41}$$

So, if $(r(e) + l(e))|_{\alpha=\frac{1}{2},\delta=1} \leq 0$, $(r(e) + l(e))|_{\alpha=0,\delta=1} > 0$. If, instead, $(r(e) + l(e))|_{\alpha=\frac{1}{2},\delta=1} > 0$, we have $(r(e) + l(e))|_{\alpha=0,\delta=1} < 0$ if and only if $\frac{f(m)}{f(-m)} > \frac{e}{e-2m}$.

Proof of Proposition 8

If $\alpha > \beta$ and $f(-m) > \frac{1}{2}$, then:

$$(\alpha - \beta)\left(\sum_{r_2 \in R(y_1)} \Pr(r_2) - \sum_{r_2 \notin R(y_1)} \Pr(r_2)\right) > 0 \tag{42}$$

for all $y_1 \in [-s_1, s_1]$. We define the global solution for agent i - possibly a corner - on $[-s_1, s_1]$ to be $y^*(i)$.

Suppose, first, $y^*(-e) \geq 0$. The Proposition holds if $y^*(e) \leq y^*(-e)$. If $y^*(e) \leq 0$, the claim is immediate. Suppose, instead, $y^*(e) \geq 0$. We have $y^*(e) = \min\{\max\{0, r(e)\}, s_1\}$. But, in turn, $y^*(-e) \geq 0$ implies $y^*(-e) = \min\{\max\{0, r(-e)\}, s_1\}$. So, it is sufficient that $r(e) \leq r(-e)$. This is true if:

$$\delta \geq (1 + (\alpha - \beta)(2(1 - f(m)) - 1))^{-1} \equiv \delta_1 \tag{43}$$

where $\delta_1 < 1$ by $\alpha > \beta$ and $f(-m) > \frac{1}{2}$.

Suppose, instead, $y^*(-e) \leq 0$. The Proposition holds if both of the following conditions are satisfied: (i) $l(e) \leq l(-e)$ and (ii) $y^*(e) = \min\{\max\{l(e), -s_1\}, 0\}$. Condition (i) holds if:

$$\delta \geq (1 + (\alpha - \beta)(2f(-m) - 1))^{-1} \equiv \delta_2 \tag{44}$$

where $\delta_2 < 1$ by $\alpha > \beta$ and $f(-m) > \frac{1}{2}$. We now verify that (ii) is also satisfied. By $\alpha > \beta$ and $f(-m) > \frac{1}{2}$, we have $r(e) \leq l(e)$, since for all $\delta \in [0, 1]$:

$$e(1 - \delta) - e\delta(\alpha - \beta)(2(1 - f(m)) - 1) \leq e(1 - \delta) - e\delta(\alpha - \beta)(2f(-m) - 1) \tag{45}$$

so $l(e) \leq 0$ implies $r(e) \leq 0$ and thus $y^*(e) \leq 0$. Thus, $y^*(-e) \leq y^*(e)$ so long as $\delta > \max\{\delta_1, \delta_2\}$.

Proof of Lemma 3

We provide a sharp characterization of the set of policies weakly preferred by the restrainer over the status quo. We use $p \equiv f(-m)$. Define:

$$\psi \equiv 4\delta m^2 p \left(2\alpha + \alpha^2 \delta p - 2\alpha\delta p + \delta p - 1\right) + 4\alpha\delta m p s_1 + s_1^2 \tag{46}$$

and

$$\underline{y} \equiv \max\{-e, (1 - \alpha)2\delta\mathbb{E}[r_2 \leq 0] - \sqrt{\psi}\}$$
$$\bar{y} \equiv \min\{-m, (1 - \alpha)2\delta\mathbb{E}[r_2 \leq 0] + \sqrt{\psi}\}$$

We show that if the restrainer at date two is certain to be other progressive or moderate, then the set of policies preferred by the moderate date one restrainer to the status quo is:

$$\begin{cases} \left[\underline{y}_A, \bar{y}_A\right] \cup [\max\{-m, -s_1 + 4\delta\alpha\mathbb{E}[r_2 \leq 0]\}, s_1] & \text{if } \underline{y} < -m \text{ and } \psi \geq 0 \\ [\max\{-m, -s_1 + 4\delta\mathbb{E}[r_2 \leq 0]\}, s_1] & \text{if } \underline{y} \geq -m, \text{ or } \psi < 0 \end{cases} \tag{47}$$

We proceed interval by interval. The relevant intervals we need to consider are $y_1 > e$, $y_1 \in [e-2m, e]$, $y_1 \in [s_1, e-2m]$, $y_1 \in [0, s_1]$, $y_1 \in [-m, 0]$, $y_1 \in [-e, -m]$ and $y < -e$. The stage payoff of the moderate restrainer who has ideal policy 0 associated with policy y_t, is $u_0(y_t)$. So, the payoff to the moderate restrainer with ideal policy 0 from the status quo is:

$$(1-\delta)u_0(s_1) + \delta\alpha\left(pu_0(-2m-s_1) + (1-p)u_0(-s_1)\right) + \delta\beta u_0(s_1) \tag{48}$$

(i) $y_1 < -e$: The payoff from the policy $y_1 < -e$ is:

$$(1-\delta)u_0(y_1) + \delta\alpha u_0(-e) + \delta\beta\left(pu_0(\min\{-2m-y_1, e\}) + (1-p)u_0(e)\right) \tag{49}$$

Since $e > 2m + s_1$ and $y_1 < -e$, we have $-2m - y_1 > s_1$; then, simple inspection shows that the latter is dominated by the former.

(ii) $y_1 \in [-e, -m]$: straightforward algebra yields the condition for y_1 to be preferred by the moderate restrainer to the status quo to be:

$$4(2\alpha-1)\delta m^2 p + 4\alpha\delta mps_1 - 4(1-\alpha)\delta mpy_1 + s_1^2 - y_1^2 \geq 0 \tag{50}$$

The LHS is strictly concave in y_1, and has roots given by:

$$-2(1-\alpha)\delta pm \pm \sqrt{\psi} \tag{51}$$

Under the condition $\psi > 0$ and applying the boundary conditions given in the definition of $\underline{y}$ and $\bar{y}$ implies that y_1 is preferred by the moderate restrainer to the status quo if and only if $y_1 \in [\underline{y}, \bar{y}]$.

(iii) $y_1 \in [-m, s_1]$: straightforward algebra yields the condition for y_1 to be preferred by the moderate restrainer to the status quo to be $y \geq \max\{-s_1 + 4\alpha\delta\mathbb{E}[r_2 \leq 0], -m\}$.

(iv) $y \in [s_1, e-2m]$: straightforward algebra yields the condition for y_1 to be preferred by the moderate restrainer to the status quo to be $(s_1 - y_1)(4\alpha\delta mp + s_1 + y_1) \geq 0$. But this condition cannot be satisfied for $y_1 > s_1$, since the second term in brackets is always strictly positive.

(v) $y_1 \in (e-2m, e]$: straightforward algebra yields the condition for y_1 to be preferred by the moderate restrainer to the status quo to be

$$-\alpha\delta e^2 p + 4\alpha\delta m^2 p + 4\alpha\delta mps + y_1^2(\alpha\delta p - 1) + s_1^2 \geq 0 \tag{52}$$

which is strictly increasing in $s_1 \leq e - 2m$ (by assumption) and strictly decreasing in $y_1 > e - 2m$ (by supposition). Setting $s_1 = y_1 = 2e - m$, yields the LHS equal to zero.

(vi) $y_1 > e$: follows a similar argument to (i).

Proof of Proposition 9

We continue to use $p \equiv f(-m)$. We begin by noting that $\psi \geq 0$ if and only if:

$$4\delta m^2 p\left(2\alpha + \alpha^2\delta p - 2\alpha\delta p + \delta p - 1\right) + 4\alpha\delta mps_1 + s_1^2 \geq 0 \tag{53}$$

This expression is strictly increasing in α and is strictly positive for $\alpha \geq \frac{1}{2}$. Thus, we must consider the possibility of an interior solution for the left proposer on the interval $[\underline{y}, \bar{y}]$.

First, we provide conditions under which the radical proposer does not prefer a solution $y_1 \in [\underline{y}, \bar{y}]$.

Consider, first, a candidate interior solution for the left proposer on the interval $[0, s_1]$. The difference between her value from this solution and her value from a candidate interior solution on $[-\underline{y}, -\bar{y}]$ is:

$$4(2\alpha - 1)\delta\left(-e^2(1-\delta) + 2(1-\delta)emp - m^2p(1-\delta p)\right) \tag{54}$$

The expression inside the second set of brackets is linear in δ. At $\delta = 1$, the expression is strictly negative; at $\delta = 0$, it is strictly negative. Thus, for any $\alpha > \frac{1}{2}$, the entire expression is strictly negative.

Next, we compare the left proposer's candidate interior solution from a policy on the interval $[\max\{-m, -s_1 + 4\delta\alpha\mathbb{E}[r_2 \leq 0]\}, s_1]$ to a candidate interior solution on $[-\underline{y}, -\bar{y}]$. The former is preferred only if:

$$4(2\alpha - 1)\delta p(m-e)(e(\delta(2\alpha - 2\alpha p + p - 2) + 1) + m(\delta p - 1)) \geq 0 \tag{55}$$

Note that the LHS is strictly concave in α, with roots $\alpha = \frac{1}{2}$ and $\alpha = \frac{-2\delta e + \delta ep + e + \delta mp - m}{2\delta e(p-1)} \equiv \bar{\alpha}(\delta, e, p, m) < 1$. So long as $\delta \geq \frac{e-m}{e-mp}$, $\bar{\alpha}(\delta, e, p, m) > \frac{1}{2}$, and an interior solution on the interval $[-s_1 + 4\delta\alpha\mathbb{E}[r_2 \leq 0], s_1]$ is strictly preferred by the leftist legislative proposer to an interior solution to the left of $-m$ if and only if $\alpha \leq \bar{\alpha}(\delta, e, m, p)$. We have $\alpha(1, e, m, p) = \frac{e+m}{2e}$. Thus, for δ sufficiently close to 1, so long as $\alpha > \frac{e+m}{2m}$, an interior solution on $[-s_1 + 4\delta\alpha\mathbb{E}[r_2 \leq 0], s_1]$ is strictly preferred to an interior solution on the interval $[\underline{y}, \bar{y}]$, by the left proposer with ideology $-e$.

Next, we verify that an interior solution on the interval $[-s_1 + 4\delta\alpha\mathbb{E}[r_2 \leq 0], 0]$ arises for the left proposer under the conditions given, above. This is true if and only if:

$$\max\{-m, -s_1 + 4\delta\alpha\mathbb{E}[r_2 \leq 0]\} \leq -e(1-\delta) + e\delta(\alpha - \beta)(2p-1) + 2\delta\alpha\mathbb{E}[r_2 \leq 0] \leq 0. \tag{56}$$

For δ sufficiently large, the first inequality is trivially satisfied if $\max\{-m, -s_1 + 4\delta\alpha\mathbb{E}[r_2 \leq 0]\} \neq -m$. Suppose, instead, $\max\{-m, -s_1 + 4\delta\alpha\mathbb{E}[r_2 \leq 0]\} = -m$. Then, for the first inequality to be

satisfied, for δ sufficiently close to one, we require:

$$e(\alpha-\beta)(2p-1)+2\alpha\mathbb{E}[r_2\leq 0]\geq -m \tag{57}$$

The LHS is linear in α: at $\alpha=\frac{1}{2}$, the inequality is $-pm\geq -m$; at $\alpha=1$, the inequality is $e\geq m$ which is true.

So, if the second inequality holds, (56) is satisfied. Suppose, instead, that the second inequality fails for $\delta=1$. Then, we have:

$$2\alpha(e(2p-1)-mp)>e(2p-1) \tag{58}$$

which requires $e(2p-1)>mp$. The inequality is then equivalent to $\alpha\geq\frac{e(2p-1)}{2(e(2p-1)-mp)}$. The difference of this expression and $\bar{\alpha}(1,e,m,p)=\frac{e+m}{2e}$ is $\frac{m(e(1-p)+mp)}{2e(e(2p-1)-mp)}>0$. So, for δ sufficiently close to 1, $\alpha\geq\frac{e(2p-1)}{2(e(2p-1)-mp)}$ cannot be satisfied by supposition of $\alpha\leq\bar{\alpha}(1,e,m,p)$ and thus the candidate interior solution on the interval $[\max\{-m,-s_1+4\delta\alpha\mathbb{E}[r_2\leq 0]\},s_1]$ is indeed interior.

These results imply that we need only verify that for δ sufficiently large, the reactionary proposer with ideology e prefers to offer a policy $y^*(e)\leq y^*(-e)\leq 0$. That $y^*(e)\leq 0$ follows because the reactionary proposer's candidate interior solution to the right of zero is:

$$e(1-\delta)-\delta e(\alpha-\beta)+2\delta\alpha\mathbb{E}[r_2\leq 0] \tag{59}$$

which is strictly negative for δ sufficiently large, since $\mathbb{E}[r_2\leq 0]\leq 0$. Moreover, $\alpha>\beta$ and $p>\frac{1}{2}$ implies $l(e)<l(-e)$. Thus, the conditions given in the Proposition are sufficient for $y^*(-e)\geq y^*(e)$.

Proof of Proposition 10

We start with a Lemma.

Lemma 4. If the restrainer at date two is certain to be either moderate or rightist ($\Pr(r_2\geq 0)=1$), then the dynamically sophisticated restrainer at date one prefers any policy

$$y_1\in\begin{cases}[-s_1+\delta 4\beta\mathbb{E}[r_2\geq 0],s_1] & \text{if } s_1\geq 2\delta\beta\mathbb{E}[r_2\leq 0]\\ [s_1,\max\{-s_1+\delta 4\beta\mathbb{E}[r_2\geq 0],m\}] & \text{if } s_1\leq 2\delta\beta\mathbb{E}[r_2\leq 0]\end{cases} \tag{60}$$

over the status quo.

Moreover, there may exist $\bar{y}',\underline{y}'$ satisfying $e>\bar{y}'>\underline{y}'\geq m$ such that the dynamically sophisticated moderate restrainer at date one also prefers any policy $y_1\in[\underline{y}',\bar{y}']$ over the status quo. No other policy is weakly preferred to the status quo by the dynamically sophisticated moderate restrainer.

Proof. We use $q \equiv f(0)$. Define:

$$\phi = 4\delta m^2(q-1)\left(2\alpha + \alpha^2\delta(q-1) - 1\right) - 4(\alpha-1)\delta m(q-1)s_1 + s_1^2 \tag{61}$$

and

$$\bar{y}' \equiv \min\{e, \alpha 2\delta\mathbb{E}[r_2 \geq 0] + \sqrt{\phi}\}$$
$$\underline{y}' \equiv \max\{m, \alpha 2\delta\mathbb{E}[r_2 \geq 0] - \sqrt{\phi}\}$$

If the restrainer at date two is certain to be either rightist or moderate ($\Pr(r_2 \geq 0) = 1$), then the set of policies preferred by the date one restrainer to the status quo consists of the following intervals:

$$\begin{cases} [-s_1 + 4(1-\alpha)\delta\mathbb{E}[r_2 \geq 0], s_1] & \text{if } s_1 \geq \delta 2\beta\mathbb{E}[r_2 \geq 0] \\ [s_1, \min\{-s_1 + 4(1-\alpha)\delta\mathbb{E}[r_2 \geq 0], m\}] & \text{if } s_1 < \delta 2\beta\mathbb{E}[r_2 \geq 0] \\ [\underline{y}', \bar{y}'] & \text{if and only if } m < \bar{y}' \text{ and } \phi > 0 \end{cases} \tag{62}$$

We proceed interval by interval, as before. The relevant intervals we need to consider are $y_1 \leq -e$, $y_1 \in (-e, 2m-e]$, $y_1 \in (2m-e, 0]$, $y_1 \in (0, s)$, $y_1 \in [s, m]$, $y_1 \in (m, e]$, $y_1 > e$. However, it is easy to show that the restrainer never prefers a policy $y_1 < -s_1$ to the status quo. So, we focus on $y_1 \in [s_1, 0]$, $y_1 \in (0, s)$, $y_1 \in [s, m]$, $y_1 \in (m, e]$, $y_1 > e$.

(i) $y_1 \in [-s_1, 0]$: straightforward algebra yields the condition for y_1 to be preferred by the moderate restrainer to the status quo to be $y_1 \geq -s_1 + \delta 4\beta\mathbb{E}[r_2 \geq 0] > -s_1$. This is feasible for $y_1 \leq 0$ if and only if $s_1 \geq \delta 4\beta\mathbb{E}[r_2 \geq 0]$.

(ii) $y \in [0, s_1]$: straightforward algebra yields the condition for y_1 to be preferred by the moderate restrainer to the status quo to be $y_1 \geq -s_1 + \delta 4\beta\mathbb{E}[r_2 \geq 0]$. This is feasible on a subset of the interval $[0, s_1]$ if and only if $s_1 \geq \delta 2\beta\mathbb{E}[r_2 \geq 0]$.

(iii) $y \in [s_1, m]$: straightforward algebra yields the condition for y_1 to be preferred by the moderate restrainer to the status quo to be $y_1 \leq -s_1 + \delta 4\beta\mathbb{E}[r_2 \geq 0]$. This is feasible for $y_1 \geq s_1$ if and only if $s_1 \leq \delta 2\beta\mathbb{E}[r_2 \geq 0]$.

(iv) $y_1 \in [m, e]$: straightforward algebra yields the condition for y_1 to be preferred by the moderate restrainer to the status quo to be:

$$4(2\alpha-1)\delta m^2(q-1) - 4(\alpha-1)\delta m(q-1)s - 4\alpha\delta m(q-1)y + s^2 - y^2 \geq 0 \tag{63}$$

This expression is strictly concave in y_1 and its roots are given by:

$$2\alpha\delta m(1-q) \pm \sqrt{\phi} \tag{64}$$

Combining these with the condition $y_1 \in [m, e]$ under the supposition $\phi > 0$ and $\bar{y}' > m$ yields the criteria $y_1 \in [\underline{y}', \bar{y}']$.

(viii) $y_1 > e$: this follows a similar argument to point (i) of the previous Lemma.

□

We now prove the proposition, starting with point (i). Lemma 3 implies that the date one moderate restrainer will only accept a policy to the right of $\min\{-s_1 + 4\delta\beta\mathbb{E}[r_2 \geq 0], s_1\}$. If $s_1 \leq 2\beta\mathbb{E}[r_2 \geq 0]$, we have $s_1 = \min\{-s_1 + 4\beta\mathbb{E}[r_2 \geq 0], s_1\}$. Thus, for δ sufficiently close to one, the moderate restrainer proposes a policy that is weakly to the right of the status quo.

We now prove (ii). If $s_1 > 2\delta\beta\mathbb{E}[r_2 \geq 0]$, the set of policies which are weakly preferred by the moderate restrainer from the set $[-e, m]$ over the status quo are $[-s_1 + \delta 4\beta\mathbb{E}[r_2 \geq 0], s_1]$. Thus, the moderate restrainer only accepts a policy that is weakly to the right of zero if $\delta \geq \frac{s_1}{m4\Pr(m)\beta} \equiv \delta_1$. Since $4\Pr(m)\beta > 1$ for $\Pr(m) > \frac{1}{2}$ and $\beta > \frac{1}{2}$, we have $\delta_1 < 1$. This step implies that for $\delta > \delta_1$, we have $y^*(-e) \geq \min\{\max\{0, r(-e)\}, s_1\}$. Note that this allows for the possibility that the left proposer proposes a policy $y_1 \in [\underline{y}', \bar{y}']$, if such an interval exists.

Thus, we need only check for conditions such that $r(-e) \geq s_1$. Under our parameter configuration, we have:

$$r(-e) = -e(1-\delta) + e\delta(\alpha-\beta)(2q-1) + \beta 2\delta\mathbb{E}[r_2 \geq 0] \tag{65}$$

which is strictly greater than s_1 so long as

$$e\left(\delta((\alpha-\beta)(2q-1)+1)-1\right) \geq s_1 - \delta\beta 2\mathbb{E}[r_2 \geq 0] \tag{66}$$

where the RHS is strictly positive, by supposition. The LHS is positive so long as $\delta \geq (1 + (\alpha - \beta)(2q-1))^{-1} \equiv \delta_2$. Since $\alpha < \beta$, set $q < \frac{1}{2}$. Then, $\delta_2 < 1$. So, for any $\delta > \max\{\delta_1, \delta_2\}$, there exists $\underline{e}(\delta)$ such that $e \geq \underline{e}(\delta)$ implies $y^*(-e) \geq s_1$.