Online appendix

A Main results

Parties maximize the probability of winning, which for the government is given by

$$\Pr(\text{g wins}) = \Pr(\delta > \hat{\delta}_\omega), \tag{1}$$

where

$$\hat{\delta}_\omega \equiv \frac{1}{\sum_j \lambda_j \phi_j} \left[\sum_j \lambda_j \phi_j \left[\alpha_j (v_j(\omega, \pi_o) - v_j(\omega, \pi_g)) + (1-\alpha_j)(w_j(q_o) - w_j(q_g)) \right] \right]. \tag{2}$$

Each party's policy choice is defined by

$$\frac{\psi}{\sum_j \lambda_j \phi_j} \sum_j \lambda_j \phi_j (1-\alpha_j) \frac{\partial w_j(q_p)}{\partial q_p} = 0, \tag{3}$$

which shows that the two policy platforms are identical in equilibrium. In the symmetric subgame perfect Nash equilibrium, the equation describes the equilibrium platforms, with $q_o = q_g$; voter i votes for the government if and only if $u_{ij,g} > u_{ij,o}$. The current government locks in the policy if $\kappa > 0$, where κ is defined in the text as the difference between the probability of winning under commitment and the probability of winning under discretion.

Note that in the symmetric equilibrium, $q_g = q_o$, as defined above. It follows that $\hat{\delta}_\omega$ collapses to

$$\hat{\delta}_\omega = \frac{1}{\sum_j \lambda_j \phi_j} \left\{ \sum_j \lambda_j \phi_j \alpha_j \left[v_j(\omega, \pi_o) - v_j(\omega, \pi_g) \right] \right\}. \tag{4}$$

With a commitment, it further follows that $\hat{\delta}_\omega = 0$. Then, the government's probability of winning is one half, and the opposition's probability of winning is one half: the election is tied under a commitment. (If δ has a non-zero mean, the expected election result would shift accordingly.) Under discretion, the government's vote share is

$$\Pr(\delta > \hat{\delta}_{\omega}) = 1 - F(\hat{\delta}_{\omega=1}), \tag{5}$$

$$= \frac{1}{2} - \frac{\psi}{\sum_j \lambda_j \phi_j} \left\{ \sum_j \lambda_j \phi_j \alpha_j \left[v_j(\omega = 1, \pi_o) - v_j(\omega = 1, \pi_g) \right] \right\}, \tag{6}$$

and the incentive to commit, κ, consequently is

$$\kappa = \frac{\psi}{\sum_j \lambda_j \phi_j} \left\{ \sum_j \lambda_j \phi_j \alpha_j \left[v_j(\omega = 1, \pi_o) - v_j(\omega = 1, \pi_g) \right] \right\}. \tag{7}$$

For $\pi_g < \pi_o$, it follows that $v_j(\omega = 1, \pi_o) - v_j(\omega = 1, \pi_g) < 0$, such that $\kappa < 0$; the opposite is the case for $\pi_g > \pi_o$. Moreover, notice that

$$\frac{\partial \kappa}{\partial \pi_o} = \frac{\psi}{\sum_j \lambda_j \phi_j} \left\{ \sum_j \lambda_j \phi_j \alpha_j \frac{\partial v_j(\omega = 1, \pi_o)}{\partial \pi_o} \right\} < 0, \tag{8}$$

which shows that the incentive to commit decreases in π_o. Similarly,

$$\frac{\partial \kappa}{\partial \alpha_j} = \frac{\psi}{\sum_j \lambda_j \phi_j} \lambda_j \phi_j \left[v_j(\omega = 1, \pi_o) - v_j(\omega = 1, \pi_g) \right], \tag{9}$$

which is negative for a $\pi_g < \pi_o$, implying that for a right-wing government the incentive to commit further decreases in α_j.

B Issue competition and fixed party attributes

As emphasized in the literature on issue ownership, parties may have entirely fixed attributes, or policy platforms, and instead compete by emphasizing different issues. Suppose both parties can allocate a share of their campaign resources $c_p \in [0, 1]$ to emphasizing inflation as an issue in the election, and α, the weight voters put on inflation, is an increasing function of c_g and c_o, such that

$$\frac{\partial \alpha(c_g, c_o)}{\partial c_g} > 0 \qquad \text{and} \qquad \frac{\partial \alpha(c_g, c_o)}{\partial c_o} > 0. \tag{10}$$

Then, the current government chooses c_g to maximize its probability of winning the election, given as before by

$$p(\text{g wins}) = \frac{1}{2} - \frac{\psi}{\sum_j \lambda_j \phi_j} \left\{ \sum_j \lambda_j \phi_j \alpha(c_g, c_o) \left[v_j(\omega, \pi_o) - v_j(\omega, \pi_g) \right] \right. \tag{11}$$

$$\left. + \sum_j \lambda_j \phi_j (1 - \alpha(c_g, c_o)) \left[w_j(q_o) - v_j(q_g) \right] \right\}. \tag{12}$$

As before, suppose that $\pi_g < \pi_o$ for a right-wing government; moreover, suppose that while the right-wing government has an advantage on inflation, the left-wing government has an advantage on other issues, such as environmental policies or social issues, such that $w_j(q_g) < w_j(q_o)$ for a right-wing government.

Under discretion, the government's probability of winning strictly increases in α_g if the government is a right-wing party: the partial derivative is

$$\frac{\partial p(\text{g wins}|\omega = 1)}{\partial c_g} = \frac{\partial \alpha(c_g, c_o)}{\partial c_g} \frac{\psi}{\sum_j \lambda_j \phi_j} \sum_j \lambda_j \phi_j \left\{ \left[v_j(\omega, \pi_g) - v_j(\omega, \pi_o) \right] + \left[w_j(q_o) - v_j(q_g) \right] \right\}, \tag{13}$$

which is positive for $\pi_g < \pi_o$. Thus, for $\pi_g < \pi_o$, the government's equilibrium choice is to put all emphasis on the first issue, where it holds an advantage; likewise, the opposition's equilibrium choice is to put all emphasis on the second issue. Hence, for $\pi_g < \pi_o$, in equilibrium $c_g = 1$ and $c_o = 0$.

Under a commitment, the derivative is given by

$$\frac{\partial p(\text{g wins}|\omega = 0)}{\partial c_g} = \frac{\partial \alpha(c_g, c_o)}{\partial c_g} \frac{\psi}{\sum_j \lambda_j \phi_j} \sum_j \lambda_j \phi_j \left\{ \left[w_j(q_o) - v_j(q_g) \right] \right\}, \tag{14}$$

which also is positive for a right-wing government, such that $c_g = 1$ remains the equilibrium choice for $\pi_g < \pi_o$. Hence, the government's equilibrium choice for which issue to emphasize is not affected by its earlier choice of whether to commit or to retain discretion: $1-\alpha_d$, the voter attention to the second issue under discretion, is identical to $1-\alpha_c$, voter attention to the second issue under a commitment.

Moreover, the government is better off under discretion than under commitment if $\pi_g < \pi_o$: the government is better off with discretion if

$$\alpha_d \sum_j \lambda_j \phi_j \left[v_j(\omega,\pi_o) - v_j(\omega,\pi_g)\right] < (\alpha_d - \alpha_c) \sum_j \lambda_j \phi_j \left[w_j(q_o) - v_j(q_g)\right], \tag{15}$$

which is always true for $\pi_g < \pi_o$. Hence, the party's equilibrium strategies are as follows: If $\pi_g < \pi_o$: $\left(\omega = 1, c_g = 1, c_o = 0\right)$. If $\pi_g > \pi_o$: $\left(\omega = 0, c_g = 0, c_o = 1\right)$.

C Policy trade-offs and inconsistent platforms

The model in the paper assumed that parties are free to propose any platform on the second dimension, despite having an exogenously given characteristic on the first dimension; and that party promises on this second platform are believed. However, voters may perceive the party characteristic to be correlated with its ability to deliver on policy platforms q_p. To formalize this concern, trade-offs among q_p and π_p are captured by $\gamma \in [0, 1-\alpha]$. Then, voter i in group j obtains utility from voting for party p of

$$u_{ij,p}(q_p, \pi_p, \omega) = \alpha v_j(\omega, \pi_p) + (1-\alpha-\gamma) w_j(q_p) + \gamma c_j(\omega, \pi_p, q_p) + \nu_{ij,p}. \tag{16}$$

For $\gamma = 0$, voters perceive any combination of a policy q_p and the inflation reputation π_p as compatible or credible. Then, the model is equivalent to the main model. Positive values of γ reflect doubts of the electorate about the ability of a party to deliver a proposed mix of q_p and

π_p, which leads voters to discount platforms that are inconsistent. The larger is γ, the more aware are voters of inconsistent platforms, and the more costly they are as a consequence. Policies are defined as consistent when $q_p = \omega\pi_p$ and as inconsistent otherwise; the larger the deviation, the larger the penalty. Thus, $c_j(\omega, \pi_p, q_p) = -(\omega\pi_p - q_p)^2$.

Parties are allowed to make inconsistent proposals, such that $q_p \neq \omega\pi_p$. Other political parties have incentives to make voters aware of such inconsistencies, as it may further their own electoral prospects, such that inconsistent platforms are likely to be recognized and discounted by voters. In other contexts, parties or candidates may have an acquired reputation in specific issue areas, which are captured by the parameter π_p; voters discount policy policy proposals on issues that are closely related, but at odds with the acquired reputation.

In the present context, q_p might represent government expenditures. Large fiscal deficits generally drive inflation, and hence are inconsistent with low inflation. In the presence of an exploitable Phillips curve, expansionary policies that increase growth also drive inflation upwards, such that high growth and low inflation are inconsistent.* Voters may nevertheless have inconsistent preferences and leave it to parties to derive a solution. I impose an assumption of 'limited consistency' on voters: if q_p and π_p are perceived to be inconsistent, such that if $\gamma > 0$, then $q_j \leq \max\{\pi_g, \pi_o\}$. Voters cannot prefer a policy that is 'larger' than what would be consistent with at least one party's inflation reputation.

That q_p might be related to π changes the calculus of parties. Left governments now may benefit from discretion, because it allows them to cater to voters that prefer policies which require higher inflation rates. Right parties, because they deliver lower inflation rates, are unable to capture these voters. Thus, right governments may have an indirect benefit from a commitment: it forces left parties to propose less inflationary policies. While this effect can provide incentives for right parties to lock in the policy, the following proposition suggests that

*If the Phillips curve is not exploitable – if prices are flexible and inflation expectations are formed rationally – and this is understood by voters, q_p is determined by the natural rate of growth. This would yield identical implications for the incentives to lock in policies as in the previous section; the point is also shown in the appendix.

circumstances where this is the case are very restrictive.

Proposition 1. *Suppose at least one of the following conditions is met:*

1. *Voters are less concerned about the inconsistency between policies and inflation rates than about the inflation rate itself:* $\gamma \leq \alpha$.
2. *Voters are sufficiently inflation-averse:* $\alpha \geq .2$.
3. *A (density-weighted) majority of the electorate prefers a policy that is more compatible with lower inflation:* $\tilde{q} \leq \frac{\pi_g + \pi_o}{2}$.

Then, if $\pi_g < \pi_o$*, the government is better off retaining discretion, whereas for* $\pi_g > \pi_o$*, the government is better off with a commitment.*

The conditions do not appear particularly stringent. For instance, Scheve (2004) provides estimates of public inflation aversion for a number of countries; most of the countries in that sample meet the threshold stated in Proposition 1. The only scenario in which inflation-prone governments prefer to refrain from a monetary commitment is when the electorate is highly concerned about the inconsistency between the policy q and inflation, is more concerned about this inconsistency than about the inflation rate, exhibits little inflation-aversion, *and* favors a policy that is inconsistent with low inflation, but consistent with high inflation.

A noteworthy implication arises for policy convergence. Electoral competition induces divergence on q_p under discretion, but convergence under a commitment. Low-inflation parties propose less inflationary policies than inflation-prone parties. The relative inflation reputation of parties, in this interpretation, is self-sustaining. In the absence of a commitment, each party's policy proposal is a weighted average of a policy that balances the demands of the J groups and the inflation reputation of that party. The fact that parties have fixed attributes, and that expectations about these attributes are difficult to change in the short term – because of a history of policy choices in the past, because labels such as left-wing or right-wing are prone to be sticky, or because some voters are reluctant to update their beliefs about different parties – is sufficient to drive divergence on other policy dimensions as well.

To prove the above: The parties' utility functions are given by the probability of winning the election. The first-order condition for maximizing a party's probability of winning yields

$$q_P(\omega) = \frac{\gamma}{1-\alpha}\omega\pi_P + \frac{1-\alpha-\gamma}{1-\alpha}\tilde{q}, \tag{17}$$

where $\tilde{q} = \frac{1}{\sum_j \lambda_j \phi_j} \sum_j \lambda_j \phi_j q_j$. Substituting the optimal policy proposals into the equation defining the government's probability of winning yields

$$p_g(\omega = 0) = \frac{1}{2} \tag{18}$$

under a monetary commitment and

$$p_g(\omega = 1) = \frac{1}{2} + \alpha\psi(\pi_o^2 - \pi_g^2) + \gamma\psi\left(\frac{1-\alpha-\gamma}{1-\alpha}\right)\left(\pi_o - \pi_g\right)\left(\pi_o + \pi_g - 2\tilde{q}\right) \tag{19}$$

under discretionary monetary policy. $\psi \in (0,1)$ is sufficient for this expression to be bounded between 0 and 1. Comparing the probabilities of winning and simplifying yields the government's electoral incentive to commit, which is defined as

$$\kappa = p_g(\omega = 0) - p_g(\omega = 1) = \alpha\psi(\pi_g^2 - \pi_o^2) + \gamma\psi\left(\frac{1-\alpha-\gamma}{1-\alpha}\right)\left(\pi_g - \pi_o\right)\left(\pi_g + \pi_o - 2\tilde{q}\right). \tag{20}$$

For $\kappa > 0$, the government prefers a commitment, since its chance of winning the election increases; for $\kappa < 0$, the government prefers discretion. As κ increases, the government's incentive to commit increases. Moreover, when comparing the parties' utility functions, a right-wing government is more likely than a left-wing government to commit if κ for a right-wing government is larger than κ for a left-wing government.

The resulting subgame perfect Nash Equilibrium is described in the following proposition.

Proposition 2. *The subgame perfect Nash Equilibrium is described as follows.*

1. *If $\kappa > 0$, the government chooses a monetary commitment ($\omega = 0$). Otherwise, the government chooses to retain discretion over monetary policy ($\omega = 1$).*

2. *After the government made its choice of ω, each party proposes*

$$q_P^* = \frac{\gamma}{1-\alpha}\omega\pi_P + \frac{1-\alpha-\gamma}{1-\alpha}\tilde{q}. \tag{21}$$

3. *Each voter i in j votes for g if and only if $U_{ij,g}(\omega) \geq U_{ij,o}(\omega)$.*

To show that for low-inflation governments the electoral incentive to commit decreases in the inflation-aversion of the electorate, note that κ decreases in α: for $\pi_g < \pi_o$, the derivative with respect to α satisfies

$$(\pi_o + \pi_g)(1-\alpha)^2 - (\pi_o + \pi_g - 2\tilde{q})\gamma^2 \geq 0.$$

The left-hand is always positive when $\gamma = 0$; for $\gamma > 0$, it is positive for $\tilde{q} \geq \frac{1}{2}(\pi_o + \pi_g)$. When $\tilde{q} < \frac{1}{2}(\pi_o + \pi_g)$, a sufficient condition is that $(1-\alpha)^2 \geq \gamma^2$, which is true because $\gamma < 1-\alpha$ by definition.

To show that for low-inflation governments the electoral incentive to commit decreases in the inflation-proneness of the opposition, note that

$$\frac{\partial\kappa}{\partial\pi_o} = -\alpha\psi(1-\alpha)2\pi_o - \gamma\psi(1-\alpha-\gamma)(\pi_g + \pi_o - 2\tilde{q}) - \gamma\psi(1-\alpha-\gamma)(\pi_o - \pi_g) < 0. \tag{22}$$

The derivative is always negative for $\gamma = 0$. For $\gamma > 0$, for $\tilde{q} < \frac{1}{2}(\pi_g + \pi_o)$, all terms are negative. If $\tilde{q} > \frac{1}{2}(\pi_g + \pi_o)$, the second term is positive. From limited consistency, it follows that $\pi_o + \pi_g - 2\tilde{q} \geq \pi_g - \pi_o$, and hence the second and the third term yield at least a negative sum, while the first term is always negative.

Consider a low-inflation government ($\pi_o > \pi_g$). Then, $\kappa < 0$ for $\tilde{q} < \frac{1}{2}(\pi_g + \pi_o)$, which is the third condition in the proposition. If this condition fails, the government has an electoral incentive to retain discretion whenever

$$0 \leq \alpha(1-\alpha)(\pi_o + \pi_g) - \gamma(1-\alpha-\gamma)(2\tilde{q} - \pi_o - \pi_g), \tag{23}$$

and a sufficient condition for this to be true is

$$\begin{aligned} \alpha(1-\alpha) &\geq \gamma(1-\alpha-\gamma), \\ (\pi_o + \pi_g) &\geq (2\tilde{q} - \pi_o - \pi_g). \end{aligned}$$

By limited consistency, $2\tilde{q} - \pi_o - \pi_g \leq \pi_o - \pi_g$, and therefore the second line holds. A sufficient condition for the first line to be true, and hence a sufficient condition for a low-inflation government to have an electoral incentive to retain discretion, is $\alpha > \gamma$. This is the first condition in Proposition 1.

If this condition fails as well, a sufficient condition for condition (23) to hold is that

$$\alpha(1-\alpha) \geq \gamma(1-\alpha-\gamma). \tag{24}$$

The right-hand side is maximized for $\gamma = \frac{1}{2}(1-\alpha)$. Substituting into condition (24) yields $\alpha \geq \frac{1}{5}$ as a sufficient condition, which is the second condition in Proposition 1. Repeating the same for an inflation-prone government shows that an inflation-prone government has an electoral incentive to commit under the same conditions under which a low-inflation government has an electoral incentive to retain discretion (in fact, an inflation-prone government has an electoral incentive to commit if and only if a low-inflation government has an electoral incentive to retain discretion). Combining the results with the probability of winning given in equation (19) shows that the vote share of inflation-prone parties increases under a monetary commitment.

D Endogeneous inflation reputation

This section presents several models where the inflation reputation of the government is no longer exogenously given, but instead is derived endogenously. As before, the government maximizes its probability of winning the election, and each voter chooses the party whose proposed policies yield a higher utility to that voter.

D.1 Different yardsticks

Suppose parties are no longer characterized by different exogenous inflation reputations. Each party chooses its policies freely. Instead, voters evaluate different parties differently. In particular, following the literature on economic voting, right-wing parties are punished more heavily for deviations in the inflation rate from voter preferences (relative to left-wing parties), while left-wing parties are punished more heavily for deviations in the growth rate (relative to right-wing parties). Thus, voter i in group j receives utility

$$u_{ij,p} = \alpha_p V_j(\pi_p) + (1-\alpha_p) W_j(q_p) + \nu_{ij,p}, \tag{25}$$

The assumption that right-wing parties are punished relatively more heavily for inflation implies that $\alpha_g > \alpha_o$ if the current government is a right-wing government, and $\alpha_g < \alpha_o$ if the current government is left-wing.

If q_p represents economic growth or, alternatively, employment, the standard, expectationsaugmented Phillips curve links inflation and growth as

$$\pi_p = \mathrm{E}[\pi] + \mu(q_p - q^*), \tag{26}$$

where q^* is the natural growth rate.

As before, voters have quadratic utility functions, such that

$$V_j(\pi_p) = -\pi_p^2, \tag{27}$$

$$W_j(q_p) = -(q_p - k_j q^*)^2. \tag{28}$$

That is, all voters prefer zero inflation. $k_j > 1$ indicates the growth target above the natural rate. Different groups have different growth targets; for instance, relative to capital owners, workers may prefer higher growth rates – and hence lower unemployment – in exchange for higher inflation. Now, the sequence of play is as follows. Voters form inflation expectations for each party. Then, parties announce platforms that maximize their vote share, given the (party-specific) expected inflation rate and the Phillips curve trade-off. Then, the election is held.

Given these assumptions, the first-order condition yields for the inflation rate

$$\pi_p = \frac{1-\alpha_p}{\alpha_p \mu}(k-1)q^*, \tag{29}$$

where $k = \sum_j \lambda_j \phi_j k_j / \sum_j \lambda_j \phi_j$ is a density-weighted average of k_j across all groups. Higher values of k, and hence voter preferences to push growth further above its natural rate, result in higher inflation rates. The growth rate under party p is given by

$$q_p = \frac{\alpha_p \mu^2 + (1-\alpha_p)k}{\alpha_p \mu^2 + (1-\alpha_p)} q^* - \frac{\alpha_p \mu}{\alpha_p \mu^2 + (1-\alpha_p)} \mathrm{E}[\pi]. \tag{30}$$

Because right-wing governments are punished more for inflation than left-wing governments, from the differences in α_p it follows that $\pi_g < \pi_o$ if a right-wing party is currently in government: $\partial \pi_p / \partial \alpha_p < 0$. Rational expectations ensure that $\mathrm{E}[\pi] = \pi_g$, such that there is no systematic bias in inflation expectations. It follows that $q_p = q^*$, which underscores the time inconsistency problem emphasized in much of the literature on monetary policy-making. Because voters prefer growth above the natural rate ($k > 1$), governments are tempted to exploit the trade-off inherent in the Phillips curve. Inflation expectations form accordingly. Consequently, governments are unable to affect economic growth but have to accept higher inflation, due to their inability to commit to not exploit the Phillips curve. Moreover, inflation increases in the government's temptation to increase inflation for an increase in economic growth: The time inconsistency problem is therefore most severe for left governments.

The model underscores how, even if both parties are office-seeking, differences in how party platforms are evaluated create different policy proposals, such that different inflation reputations arise. The expected inflation rate under a left party is higher than the expected inflation under a right party, even though both are office-seeking and even though economic growth is the same under both parties; moreover, in this model, all voters prefer zero inflation rates. This provides a justification for the assumption that left-wing parties carry a reputation for higher inflation rates. It also provides a simple nexus between models of economic voting, which tend to focus on voter evaluations of past government behavior, and a model of vote choice with purely forward-looking actors. If parties are evaluated differently, maybe because they are perceived to have different skill sets, different policies and different outcomes may obtain under different parties, even where parties are office-seeking and have no agenda of their own.

As before, right-wing governments refrain from a commitment: because left-wing governments are expected to produce higher inflation rates, without an attendant increase in growth rates, right-wing governments have an electoral advantage that they would cede by establishing an independent central bank. In fact, the intuition for the results and comparative statics will be identical to the first model: The outcome on q_p is identical for both parties, while π_p is higher for left-wing governments than for right-governments. One notable difference is that now, q_p is determined by the inflation rate under each party, and therefore further away from the density-weighted median voter's ideal point than the policy proposed under free competition (except in the degenerate case where the two coincide). The second notable difference is that now, the party's deviations from the voters' ideal points are weighted differently for the two parties, due to the differences in α_p. However, right-wing parties are still better off under discretion. To see this, note that for each individual voter, the right-wing party is strictly preferred in terms of q_p (the deviation from the voter's ideal point is the same as for the left-wing party, and the weight on the deviation is larger for the left-wing party than for the right-wing party), but also in terms of inflation. The loss for an individual voter from the inflation component is $-\alpha_p \pi_p^2$. For a low-inflation government, with $\alpha_g > \alpha_o$, it follows that discretion is better if and only if

$$
\begin{aligned}
-\alpha_g \pi_g^2 &> -\alpha_o \pi_o^2, \\
\Leftrightarrow \alpha_g \alpha_o &< 1,
\end{aligned}
$$

where the second line follows from using the equilibrium inflation rate and simplifying, and the second line is always true. Hence, under discretion, the right-wing party gains from both its stance on inflation and its stance on the policy platform; under commitment, the right-wing party only gains from its policy platform, and hence loses votes relative to discretion. It follows that the right-wing party has a disincentive to commit, and an incentive to retain discretion.

Finally, note that a variation of the model allows to incorporate a legislative efficiency argument, created from the uncertainty about who holds office after the election, which allows parties to temporarily exploit the Phillips curve. Suppose voters cannot form party-specific inflation rates. The expected inflation-rate, should the currently ruling party retain office, is $\mathrm{E}[\pi|g \text{ wins}] = \frac{1-\alpha_g}{\alpha_g \mu}(k-1)q^* = \pi_g$, and similarly for the opposition party. Then, if inflation expectations are formed before the election and cannot distinguish between party platforms, the expected inflation rate $\mathrm{E}[\pi]$ depends on the inflation rate implemented under the winning party. It is determined as

$$\mathrm{E}[\pi] = p\pi_g + (1-p)\pi_o, \tag{31}$$

where p is the probability that the current government wins the election and remains in office. While the Phillips curve, in the presence of rational expectations, rules out *expected* policy changes from affecting growth, the election injects an unexpected policy change, which allows inflation to – temporarily – affect growth.

Under discretionary policy-making, this effect disadvantages right parties. If the current government is a low-inflation government,

$$\mathrm{E}[\pi] = p\pi_g + (1-p)\pi_o > \pi_g, \tag{32}$$

which implies that $q_g < q^*$. The economy therefore contracts after the election if the inflation-averse party stays in office, while it expands if the inflation-prone party gains office. The reason is that the election causes the inflation rate to rise above the expected inflation rate under an inflation-averse government but to drop below the expected inflation rate under an inflation-prone government. This creates unexpectedly high inflation if the inflation-prone party wins office, which pushes economic growth upwards. By contrast, if the inflation-averse party wins office, inflation will be unexpectedly low, pushing down economic growth. Anticipating these effects, voters may have an incentive to favor the left-wing government in the upcoming election, especially if they put a large emphasis on combating unemployment relative to inflation. By contrast, if the inflation rate is determined by a central bank and not dependent on the party holding office, inflation expectations match the implemented inflation rate, removing the increase in output under left-wing parties that would emerge under discretionary policy-making.

This presents potentially conflicting incentives to right-wing parties. On the one hand, establishing an independent central bank ties inflation rates down, which means that the party foregoes an issue on which it would outperform a left-wing party. As before, the incentive to refrain from a commitment for this reason increases in the differences with the opposition and in the inflation-aversion of the electorate. On the other hand, establishing an independent central bank removes the growth bias immediately after an election in favor of left-wing parties. Removing this bias through a commitment benefits right-wing parties. Yet, as can be verified, the first effect always outweighs the latter: the benefit from retaining discretion and leveraging the difference in expected inflation rates always outweighs the benefit from a commitment and smoothing out inflation rates across different parties.

D.2 Limited resources

Instead of the trade-off implied by the Phillips curve, suppose more generally that the two parties have limited resources to create and implement legislation on the two policy dimensions. Specifically, the two parties have a budget of resources (which may include, for instance, time, political capital, legislative staff and resources), z, and can allocate these resources to two policies, q_p and m_p. The cost of producing one unit of q_p is one, while the cost of producing m_p is $r_p > 0$. Moreover, suppose that inflation is related to q_p through a decreasing function $f(m_p) = \pi_p$, where $f'(m_p) < 0$ and $f''(m_p) \geq 0$. Thus, m_p can be thought of as policies to address and lower inflation rates. As noted in the manuscript, suppose that right-wing governments have a lower relative cost of addressing inflation – for instance, because they attract candidates who are better able to design and implement such policies.

As before, voter i in group j receives utility

$$u_{ij,p} = \alpha v_j(\pi_p) + (1-\alpha) w_j(q_p) + \nu_{ij,p}. \tag{33}$$

Suppose that $v' < 0$, $v'' > 0$, and $w' > 0$, $w'' < 0$. The following results also hold when using quadratic utility functions instead (and previous models hold with these assumptions), but because they guarantee that the budget constraint becomes a binding constraint, these conditions facilitate notation.

The parties' policy proposals are defined implicitly by the first-order condition, such that

$$\alpha \sum_j \lambda_j \sigma_j v_j'(f(m_p)) f'(m_p) = r_p (1-\alpha) \sum_j \lambda_j \sigma_j w_j'(z - r_p m_p). \tag{34}$$

Thus, the parties equate the marginal returns of moving on the two dimensions, weighted by the relative importance of the issue areas, as determined by the inflation-aversion α, and the relative cost of fighting inflation, given by r_p. Then, using the implicit function theorem,

$$\frac{\partial m_p}{\partial r_p} = \frac{(1-\alpha)\sum_j \lambda_j \sigma_j w_j'(q_p) - m_p r_p (1-\alpha) \sum_j \lambda_j \sigma_j w_j''(q_p)}{\alpha \sum_j \lambda_j \sigma_j v_j'(f(m_p)) f''(m_p) + \alpha \sum_j \lambda_j \sigma_j v_j''(f(m_p)) \left[f'(m_p)\right]^2 + r_p^2 (1-\alpha) \sum_j \lambda_j \sigma_j w_j''(q_p)}, \tag{35}$$

and note that the nominator is strictly positive, whereas the denominator is strictly negative (which also proves that the above equation defines a global maximum), such that the overall expression is negative (with quadratic utility functions, the same is true: the denominator is strictly negative, which is easy to see; the nominator is strictly positive, because where the budget constraint binds it follows that $q_p < q_j$, such that $w'(q_p) > 0$ in equilibrium). It follows that m_p decreases in r_p, such that inflation increases in r_p. Consequently, right-wing governments are characterized by lower inflation rates than left-wing governments. Moreover, it is easy to verify that the right-wing government is better off with discretion than with a commitment, where it loses its advantage on the low-inflation policy.

The model also formalizes the idea that commitments become, absent electoral effects, more appealing to governments when it is difficult to address inflation, say because the government is composed of a large set of diverse coalition partners. This effect, as argued in the literature (e.g., Bernhard 1998; Bernhard and Leblang 2002), creates the cost of addressing monetary policy-making politically. This effect drives up r_p, therefore lowers m_p, and hence increases π_p. As a consequence, voters are better off with a monetary commitment than without one, because the higher cost of addressing inflation makes parties more reluctant to invest in that policy area; at the same time, a commitment also allows parties to focus more resources on other policy areas, here q_p – with a commitment, the entire budget will be invested into q_p, allowing parties to move policy closer to the median voter's preferred policy. However, these effects apply to both parties alike. The difference between left-wing and right-wing parties, and in particular the vote loss of a right party, relative to a left party, that results from a commitment, remains.

If utility functions were quadratic, obtain the two parties' policy proposals form the Lagrangian to obtain the following first-order conditions (the second-order condition is easily verified):

$$\frac{\partial \mathscr{L}}{\partial m_p} = \alpha \sum_j \lambda_j \sigma_j V_j'(f(m_p))f'(m_p) - \lambda r_p = 0, \tag{36}$$

$$\frac{\partial \mathscr{L}}{\partial q_p} = (1-\alpha) \sum_j \lambda_j \sigma_j W_j'(q_p) - \lambda = 0, \tag{37}$$

$$\frac{\partial \mathscr{L}}{\partial \lambda} = z - q_p - r_p m_p \leq 0. \tag{38}$$

If the budget constrain was not binding, $\lambda = 0$; in that case, both parties would satisfy the policy preferences of a density-weighted median voter, and the low-inflation party would weakly prefer to retain discretion. If the budget constrain is not binding, parties would deviate on both dimensions from the median voter's preferred policy, due to the resource constraint. The remainder follows as above.

D.3 Partisan base and policy differentiation

This model incorporates the idea that parties may be beholden to a group of voters, which in the following is called its 'base.' These can be core voters, or a group from which the party predominantly recruits. Because of this electoral base, voters may be uncertain to which extent parties will follow through on the policy platforms they propose in electoral campaigns. In contrast to the earlier model, and to focus on the effects of the partisan base, this model dispenses with the assumption that parties differ in their ability to create policies; they have the same 'technology' to craft and implement legislation. Thus, parties have limited resources to create policies, but with no difference in the relative cost of producing policies: $z = rm_p + q_p$, where $\pi_p = f(m_p)$.

To sequence of play now is as follows. First, the current government decides whether to implement a commitment. Second, voters cast their vote for the party which yields the highest expected utility. Third, the left party learns whether it is neutral or of the biased type. With probability γ, the left party is neutral and not beholden to its base once in office; with probability $1-\gamma$, the left party is biased. The party in government then implements its policies.

To incorporate the notion of an electoral base, suppose the left-wing party implements, once in office, not necessarily the promised platforms. If it is of the biased type, the left-wing party instead implements a policy which gives additional weight to one of the groups, $k \in \{1, \ldots, J\}$. That is, once in office, the left party implements the policies that maximize

$$
\begin{aligned}
\Omega = \frac{1}{2} - \frac{\psi}{\sum_j \lambda_j \phi_j} &\left\{ \sum_j \lambda_j \phi_j \alpha_j \left[v_j(\omega, \pi_o) - v_j(\omega, \pi_g) \right] + \sum_j \lambda_j \phi_j (1-\alpha_j) \left[w_j(q_o) - v_j(q_g) \right] \right\} \\
&+ \left\{ s\lambda_k \alpha_k v_k(\omega, \pi_g) + s\lambda_k (1-\alpha_k) w_k(q_g) \right\}, \\
&\text{subject to} \quad z = rm_p + q_p,
\end{aligned}
$$

where $s \geq 0$ captures the additional weight put on group k. If the left-wing party is biased, which occurs with probability $1-\gamma$, it follows that $s > 0$. If the left-wing party is neutral, and therefore with probability γ, it follows that $s = 0$. Before proceeding, define m^e and q^e as the optimal unbiased policies: they maximize the probability of winning if there was only the unbiased type and no voter uncertainty about the party's type.

Suppose the right-wing government won the election. This results in the policy choices m^e and q^e. If the neutral type of the left-wing party wins the election, it also implements m^e and q^e. If the biased type wins the election, it implements policies q^b and m^b defined implicitly by

$$\sum_j \lambda_j \phi_j \alpha_j \frac{\partial v_j(\omega, \pi_g)}{\partial \pi_g} \frac{\partial \pi_g}{\partial m_g} + \sum_j \lambda_j \phi_j (1-\alpha_j) \frac{\partial w_j(q_g)}{\partial q_g} \frac{\partial q_g}{\partial m_g} \tag{39}$$
$$= s\lambda_k \left(\frac{\sum_j \lambda_j \phi_j}{\psi} \right) \left[\alpha_k \frac{\partial v_k(\omega, \pi_g)}{\partial \pi_g} \frac{\partial \pi_g}{\partial m_g} + (1-\alpha_k) \frac{\partial w_k(q_g)}{\partial q_g} \frac{\partial q_g}{\partial m_g} \right].$$

The left-hand side is identical to the first-order condition from the unbiased type, but evaluated at different equilibrium policies, because the right-hand side is generally non-zero for $s > 0$. Hence, the equilibrium policies q^b and m^b chosen by the biased type differ from q^e and m^e. It follows that voters expect from a left-wing government, with probability γ, to obtain policies m^e and q^e, and with probability $1-\gamma$ policies m^b and q^b. If both parties implemented m^e and q^e, the election would be a tie; by contrast, if the left-wing party implements m^b and q^b and the right-wing party implements m^e and q^e, the right-wing government has an electoral advantage. Since voters expect the left-wing government to implement m^b and q^b with probability $1-\gamma$, the election under discretion favors the right-wing government. By contrast, under a commitment, the election is a tie: inflation is taken off the table, and both parties allocate all of their resources to the second dimension q_p. Regardless of the left-wing's electoral base or whether it is biased, both parties allocate $q_p = z$, resulting in a tie. As a consequence, right-wing governments are worse off under a commitment than under discretion, and have a disincentive to commit.

What remains to be shown is whether expected inflation rates are, indeed, higher under left-wing governments. Using the implicit function theorem,

$$\frac{\partial m^b}{\partial s} = \frac{\lambda_k \alpha_k \frac{\partial v_k(\omega,\pi_g)}{\partial \pi_g}\frac{\partial \pi_g}{\partial m_g} + \lambda_k(1-\alpha_k)\frac{\partial w_k(q_g)}{\partial q_g}\frac{\partial q_g}{\partial m_g}}{-SOC}, \tag{40}$$

where the denominator is the second-order condition multiplied by -1 and always positive. It follows that m^b decreases in s if and only if

$$\alpha_k < \hat{\alpha} \equiv \frac{r w_k'(q_g)}{v_k'(\omega, \pi_g) f'(m_g) + r w_k'(q_g)}. \tag{41}$$

It follows that $\hat{\alpha}$ is bound between zero and one. Thus, $\alpha_k < \hat{\alpha}$ exists if α_k is sufficiently small, that is, if the left-wing party's base is sufficiently inflation-averse. The condition always holds if the left-wing party's base is insensitive to inflation. It follows that, for the biased type of the left-wing party, inflation is higher than for the right-wing party and higher than for the unbiased type, as long as the left-wing party's base is sufficiently inflation-averse. From the perspective of voters, the expected inflation rate if the left party wins is $\mathrm{E}[\pi|\text{left wins}] = \gamma f(m^e) + (1-\gamma) f(m^b) > \pi^e$. That is, voters expect higher inflation rates under left-wing governments, because there is a chance that the left-wing government caves in to its base, which is relatively inflation-tolerant. Similar results would be obtained if parties would make policy proposals before the election, and voters discount deviations of implemented policies from policy platforms.

E Results from Cox proportional hazards model

The empirical section mentions a number of additional results. Coefficient estimates and p-values, based on robust standard errors, from the respective models are shown in Table 1. The variable CAPITAL INFLOWS measures net inflows of foreign direct investment and portfolio investment as a percentage of gross domestic product (GDP) in order to capture reliance on foreign capital. TRADE BALANCE measures exports minus imports as a percentage of GDP, TRADE OPENNESS exports plus imports as a percentage of GDP. All of these variables are obtained from the World Bank. VETO PLAYERS measures the number of veto players, obtained from the Database of Political Institutions.

TABLE 1 Cox Proportional Hazards Model: Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
LEFT	.717	3.57	3.61	2.92	2.96	3.21	.710
	(.067)	(.000)	(.000)	(.036)	(.013)	(.003)	(.081)
CAPITAL INFLOWS		.061	.059	.062	.063	.067	
		(.001)	(.001)	(.000)	(.004)	(.001)	
TRADE BALANCE			2.35				
			(.644)				
TRADE OPENNESS				-.010			
				(.461)			
LOG POPULATION					.813		
					(.002)		
LOG GDP						.724	
						(.010)	
VETO PLAYERS							.152
							(.068)
Number Obs.	47	38	38	38	38	38	47

Coefficient estimates, *p*-values in parentheses.

F Results from cross-section of central bank reforms

Table 2 presents the results for evaluating Proposition 2.

TABLE 2 Reforms to central bank independence

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Partisan differences				Inflation aversion			
Right-wing government	-2.40***	-2.44***	-2.36**	-3.26**	.43	.41	.53	.51
	(.010)	(.010)	(.012)	(.039)	(.455)	(.478)	(.415)	(.634)
x Partisan differences	-.31**	-.34**	-.32**	-.51*				
	(.046)	(.031)	(.041)	(.052)				
x Inflation aversion					-2.67**	-2.61**	-2.69**	-4.83**
					(.027)	(.035)	(.037)	(.024)
GDP	.0072	.18	.12	-1.39	.100	.071	.15	-1.70
	(.952)	(.220)	(.371)	(.447)	(.578)	(.742)	(.398)	(.473)
GDP per capita	-.092***	-.11***	-.10***	-.13	-.071**	-.069**	-.078**	.027
	(.002)	(.001)	(.002)	(.313)	(.032)	(.037)	(.027)	(.761)
Veto players	.13*	.16*	.12	.35	.036	.030	.017	-.29
	(.090)	(.074)	(.148)	(.207)	(.714)	(.752)	(.848)	(.250)
Inflation	2.94***	2.99***	3.69***	6.99***	.61	.59	.78	2.34**
	(.000)	(.000)	(.000)	(.000)	(.275)	(.294)	(.212)	(.025)
3-year average inflation	-.30	-.55	.16	-2.00	1.05**	1.07**	1.14***	-.11
	(.681)	(.532)	(.668)	(.255)	(.015)	(.010)	(.008)	(.938)
Capital account openness	.48***	.61***	.52***	1.53**	.35	.35	.36	.72
	(.004)	(.001)	(.005)	(.016)	(.113)	(.114)	(.119)	(.137)
EU member	1.01**	.65	.40	-.034	.30	.34	.077	-.052
	(.044)	(.199)	(.446)	(.968)	(.524)	(.467)	(.864)	(.970)
Lagged CBI	-3.07***	-3.17***	-3.57***	-11.6**	-2.24***	-2.26***	-2.53***	-5.80***
	(.000)	(.000)	(.000)	(.033)	(.000)	(.000)	(.000)	(.000)
Year trend	.18***	.18***	.20***	.50***	.13***	.14***	.14***	.28***
	(.000)	(.000)	(.000)	(.003)	(.000)	(.000)	(.000)	(.002)
Plurality rule		-1.20**				.20		
		(.010)				(.729)		
Exchange rate regime			-.59*				-.29	
			(.070)				(.187)	
Partisan differences	.069	.090	.065	.16				
	(.435)	(.326)	(.478)	(.310)				
Inflation aversion					-.10	-.29	.10	280.2
					(.883)	(.741)	(.897)	(.423)
Constant	-362***	-363***	-406***	-985***	-276***	-276***	-297***	-687**
	(.000)	(.000)	(.000)	(.003)	(.000)	(.000)	(.000)	(.026)
Country FE				yes				yes
Number Obs.	813	811	813	585	681	681	681	517
Number Countries	45	45	45	27	29	29	29	22

Coefficient estimates and *p*-values. Standard errors clustered by country. *** significant at 1%, ** significant at 5%, * significant at 10%.

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