Electoral Pressures and the Incentive to "Bring Home the Pork": The Case of Philippine Senators

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Abstract

How do electoral pressures affect the incentive to supply fiscal legislative particularism (pork)? Research in legislative politics suggests that the desire to get reelected encourages legislators to build a personal vote and they do so by "bringing home the pork"—by delivering electorally rewarding, targeted spending. We find that legislators facing reelection do not always bring home the pork. Analyzing how Philippine Senators spend their discretionary funds, we demonstrate that when targeting narrow constituencies is electorally costly, legislators find other ways to use pork to build a personal vote. We show, in particular, that Philippine Senators standing in election change the timing of pork utilization, but do not behave any differently than non-reelectionists in choosing the mix of targeted versus non-targeted spending.

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1   Introduction

How legislators respond to electoral pressures has been the subject of much interest among scholars of legislative politics. One of the earliest and enduring explanations is Mayhew's—that the desire to get reelected encourages legislators to build a personal vote—the part of the vote that is based on candidate characteristics or record (Cain, Ferejohn and Fiorina, 1987; Mayhew, 1974). There are many mechanisms for building a personal vote. When it comes to fiscal legislative particularism (pork), building a personal vote has typically meant that legislators standing in election are more likely to "bring home the pork" to their district constituencies. The underpinning assumption is that targeting pork to a narrow constituency is electorally rewarding. But, is targeted pork provision always a useful strategy for legislators seeking to cultivate a personal vote? Under what conditions might such a strategy be costly?

In this article, we seek to broaden our understanding of when and how legislators use pork to build a personal vote. The core suggestion is that when legislators face electoral pressures, the desire to build a personal vote does not necessarily imply that they will use pork to target narrow constituencies even where resources for targeted pork are readily available. We demonstrate that when bringing home the pork is electorally costly, legislators find other non-targeted ways to use pork to signal ability. Specifically, the timing of non-targeted pork allocations becomes a way for legislators to signal their capability to voters.

We analyze the case of Senators in the Philippines to gain new insights into the link between electoral pressures and the incentive to bring home the pork. Unlike in the U.S. and in most democracies where Senators have subnational (e.g. statewide) constituencies, Members of the Senate in the Philippines are elected by plurality-at-large voting by the entire national electorate. Because of the national nature of their election, Philippine Senators have to respond to a much broader constituency than is typical for members of the legislature. At the same time, Senators still face enormous pressures to develop their

own personal networks of support. The Senate is elected using the Block Vote–candidates compete directly with both partisan opponents and other candidates from their own party. Where party labels are weak (as they are in the Philippines), the Block Vote tends to produce strong incentives to cultivate a personal vote (Hicken 2009). More on this below.

In addition to these personal vote incentives, Senators have ready access to pork which they could use to build up personal networks of support. They are entitled to annual lump sum appropriations from the Constituency Development Fund (CDF)—a type of fiscal legislative particularism common in many developing democracies that allocates budgetary resources directly to individual legislators to spend on public works and services of their choosing. Hence, CDF is a prime example of pork—discretionary spending uniquely attributed to legislator's effort and with benefits intended for legislator's constituents.

We examine whether Philippine Senators who are standing in elections use CDF differently than their nonreelectionist counterparts and we find that they do. In particular, we find robust evidence that they substantially increase efforts to utilize CDF as election approaches. However, we find no evidence that they are more prone to target CDF spending to narrow constituencies captured in a variety of measures. In fact, quite the opposite, we find that only Senators who are not facing reelection are willing to make significant use of targeted pork. This runs counter to the standard reelectionist story, but is completely consistent with our theoretical expectations drawn from the institutional arrangements in the Philippines.

Our research contributes to scholarship on legislative politics in three ways. First, we improve on the econometric strategy for identifying the effect of electoral pressures on the supply of fiscal legislative particularism. The extant literature has typically only indirectly tested the effect of reelection incentives on public spending by comparing last-termers to those who can still run for reelection, with the prediction that last-termers are less likely to inflate spending. Scholars have exploited both across-politician variation (Besley and Case, 1995) and within-politician variation (Aidt and Shvets, 2012) in term-limit status to detect

a 'last-termer effect'. However, many of these studies face the problem of finding a source of variation in electoral pressures that is exogenous to legislator characteristics and the political environment. In this article, we directly test a 'reelectionist effect' by exploiting the exogenous variation in reelection status arising from the constitutional design of senate elections in the Philippines. The law stipulates that all Senators serve six-year terms but that half be elected on a staggered basis every three years, allowing us to compare the behavior of Senators in their last three years in office and who are up for reelection, to those in their first half of the term.

The idea of using staggered elections to identify variation in reelection status, by itself, is not novel in the literature, and there are many countries with staggered legislative elections (Shepsle et al., 2009; Fukumoto and Matsuo, forthcoming). But two unusual features of the Senate in the Philippines allow us to avoid some of the challenges associated with the study of pork barreling in other legislative contexts. First, Philippine Senators are all elected from the same single national district. This eliminates the selection bias concern that those who stand for reelection face different schematically electoral environments than those that do not stand.[1] Second, Senators each receive the same amount of pork barrel resource, by law. This enables us to isolate the effect of standing for reelection, while holding pork resources constant. Our dataset covers four election cycles, allowing sufficient variation in reelection status among Senators.

Second, this research adds to an important and growing research agenda in legislative politics that seeks to understand how electoral pressures change the behavior of legislators. Scholars have shown that as election approaches, legislators undertake more casework for individual constituents (Cain, Ferejohn and Fiorina, 1987; Heitshusen, Young and Wood, 2005), take different positions on roll call votes (Ahuja, 1994; Bernstein, 1991; Shapiro et al., 1990); increase efforts to raise campaign funds (Hall and Houweling, 2006); travel back to home state more often (Fenno, 1982) and therefore show up in the chamber less often (Fukumoto and Matsuo, forthcoming), and increase the number of co-sponsored

legislation (Campbell, 1982). Here, we demonstrate that electoral pressures encourage legislators to use pork to build a personal vote by changing the timing of pork utilization but not by targeting pork to narrow constituencies or parochial interests.

Third, our work contributes to the literature on the ways in which institutions can shape the capacity and incentives of politicians to use pork. Similar to the work on the pork in the U.S. Congress, those working on pork in the Philippines have largely focused on the incentives and behavior of members of the House of Representatives (Atkinson, Hicken and Ravanilla, 2014; Ravanilla, 20154). We seek to expand our understanding of distributive spending in the Philippines by turning our attention to the under-studied Senate.[2] We argue that given the differences in institutional incentives Senators should use pork differently from their House counterparts. This despite the fact that both Senators and Congressmen have access to an abundance of pork resources.

In the next section we review the extant literature linking electoral pressures with the supply of fiscal legislative particularism and generate our hypotheses. In Section 3 we discuss the specific CDF (senatorial pork) program in the Philippines. We discuss our econometric strategy and identification in Section 4. Then we present the results and analysis in Section 5. We conclude with a discussion of the broader public policy implications of how electoral pressures impact the supply of fiscal legislative particularism.

2 Electoral Pressures, the Personal Vote, and the Incentive to "Bring Home the Pork"

Much of the literature takes as a point of departure the existing understanding of legislative behavior—that legislators are goal oriented. The proximate goal is to gain reelection, and to be reelected, legislators expend effort on cultivating personal votes. The extent to which legislators need to cultivate a personal vote, of course, varies by the nature of the electoral system (Carey and Shugart, 1995; Shugart, 2005). Notwithstanding,

legislators who need to cultivate personal votes can employ a variety of mechanisms.

Where the executive has budgetary authority and the sole right to introduce "money bills" (i.e. bills with spending element), legislators engage in extra-legislative mechanisms to build a personal vote. These include dealing with constituency casework, holding meetings with individual constituents, attending local party meetings, and attending other functions in their constituency (Norris 1997). This is true, for example, in the case of British MPs that have no opportunity to generate fiscal particularism for their districts (Cain, Ferejohn and Fiorina, 1987).

But where legislators have the option to engage in fiscal legislative particularism (pork), the standard prediction is that legislators will "bring home the pork"—secure pork spending projects or earmarks from national/federal budget for a narrow constituency. This is with good reason. Legislators use pork to build reputations when it is a more credible and less costly signal to voters compared to electoral promises (Keefer and Vlaicu, 2008; Bueno de Mesquita et al., 2003; Robinson and Torvik, 2005; Robinson and Verdier, 2013). They also use it to convince voters that they are of high ability when voters cannot easily observe but can infer ability from pork provision (Ashworth and de Mesquita, 2006).

The theoretical prediction that legislators facing electoral pressures will "bring home the pork" assumes that such behavior is free of electoral costs or at least brings more benefits than costs. In fact, the seminal works on pork barreling assumes that bringing home the pork confers electoral benefits—not costs—because legislators need only cater to their district constituencies to win elections, at the same time that the tax burden is diffused across the entire national electorate (Ferejohn, 1974; Weingast, Shepsle and Johnsen, 1981). But what if legislators had the ability to use pork but only at a (electoral) cost? How then would legislators use pork to build a personal vote? The contribution of this research is in recognizing that as legislators facing reelection decide how to use pork—when electoral costs enter their objective function—then bringing home the pork may no longer be the preferred strategy. We demonstrate that where pork is available,

legislators will find other ways to use it to build a personal vote. We focus on the case of Philippine Senators because it is illustrative of this broader theoretical point.

2.1 Insights from Philippine Senators

Intuition suggests that Philippine Senators up for reelection would rely on whatever mechanisms are available and effective in an effort to build a personal vote and differentiate themselves from other senatorial candidates. As discussed above, we know from existing studies that pork can help candidates boost their credibility and signal their ability to voters. We expect this to hold for reelectionist Senators as it does for any candidate for a legislative post, and there are reasons to expect that senatorial candidates face particularly strong incentives to use pork.

The Philippine Senate consists of 24 seats. Senators sit for six-year terms with half of the seats up for reelection every three years. Senators are elected from a single national constituency, using the Block Vote. To be specific, voters can vote for up to twelve senatorial candidates and the top twelve vote-getters are awarded seats. While the Block Vote system does not generate as strong an incentive to cultivate a personal vote as where voters possess a single vote and must choose between candidates from the same party (*a la* SNTV), it does tend to undermine the value of party label and encourage candidates to develop personalized networks of support that are independent of party (Carey and Shugart, 1995; Hicken, 2009). Candidates for Senate, by necessity, compete with as many as eleven co-partisans and this intra-party competition means that relying primarily on party labels as a campaign tool is a poor strategy. The most successful candidates are those that are able to develop or capitalize on large national followings. (Hence the penchant in Filipino politics for celebrity Senators.) Given the incentives to place personality before party, we expect that pork would be an appealing tool for sitting Senators as they seek to set themselves apart from their competitors.

The pork that is available to Philippine Senators is formally known as Constituency

Development Fund (CDF). CDF is a type of fiscal legislative particularism that has been adopted in many other developing countries including India, Kenya, Pakistan, and Sierra Leone. CDFs allocate budgetary resources directly to individual legislators to spend on public works and services of their choosing. We describe in the next section the specific CDF program in the Philippines. For now, we focus on how Senators would use CDF to build a personal vote.

Unlike Members of the (Lower) House of Representatives whose constituencies are geographically small, Senators must compete for votes on a nation-wide basis. Given a budget constraint—the cap on the amount of annual CDF appropriations—Senators cannot possibly target pork to enough subnational constituencies to secure reelection. To the extent they are going to target pork to narrow constituencies or parochial interests, they must make a choice between those who receive funds and those who do not. They may target a subnational constituency that they care about but only at the expense of disadvantaging other constituencies, and this carries with it electoral risk. Namely, for every vote a Senator secures through the deployment of targeted pork, they risk losing the votes of those who are not the recipients of such largess.

Thus, senatorial reelectionists face a tradeoff. They desire to use the available pork to signal ability but they need to minimize the adverse effects of targeting sub-national constituencies.[3] How might senators maximizing the probability of reelection respond to this change in the calculus of pork politics?

Even if Senators find the risk of targeting pork to local bailiwicks too high, there are still other ways to use pork to build a personal vote. One possibility is to channel pork funds away from subnational constituencies and, instead, direct them to programmatic spending by government agencies. Even if funds are spent on programmatic projects, senators can still claim credit for the release of funds from their CDF allotments, thereby achieving the goal of signaling ability while avoiding the electoral backlash of targeted spending. Indeed, some Philippine Senators report the detailed breakdown of the releases

of CDF released through national government agencies (NGAs) as well as local government units (LGUs), which is consistent with the notion that they still seek to claim credit for how they use the CDF.[4]

Alternatively, they may choose to "pass on the pork" and, instead, expend effort in non-fiscal legislative mechanisms to build a personal vote. (The expression "pass on the pork" is coined by Keefer and Khemani (2009) for when legislators forego the use of their CDF allotments.) As we discuss in the next section, legislators need to exert effort to release the funds from their CDF allotments. They may find it more electorally rewarding to expend efforts, instead, on extra-legislative parochialism (constituency service) for building a personal vote. For example, they may choose to travel across the country to attend public meetings and other speaking engagements, or they may concentrate efforts to author and pass national legislation. We would also expect Senators facing reelection to behave differently from those who have just begun their six year terms. Work in the American context has found that Senators work to skew appropriations towards the end of their terms (Sheplse et. al. 2009). We expect a similar dynamic in the Philippines. In non-election years, the risks and effort involved in using pork can outweigh the potential benefits. It is also the case that unspent appropriations can be carried over from year to year during the term of a Senate. As a result, we expect that Senators will often opt to forgo pork spending in non-election years and instead bank those pork funds for deployment when the Senator is facing reelection.

In light of the preceding discussion we hypothesize the following. 1) Senators should eschew locally-focused pork strategies. 2) Senators not standing for re-election will pass on the pork and rely on other personal vote building strategies instead. 3) Senators who are seeking reelection will engage in greater pork utilization than their non-relectionist counterparts, (but they will do so in a non-targetted manner). That reelectionists would increase efforts to utilize pork as election approaches would be consistent with what Weingast, Shepsle and Johnsen (1981) refer to as the "what have you done for me lately"

(WHYDFML) principle, in which reelection-conscious politicians engage in greater spending as reelections kick into high gear (see also Patty and Weber, 2006; Shepsle et al., 2009).

In summary, we argue that senatorial reelectionists will use pork to build a personal vote. However, we argue that they will do so in ways that strike a balance between using pork to signal ability and limiting electoral backlash from differential targeting of pork. Before we empirically test our hypotheses, we first discuss the specific type of fiscal legislative particularism or pork available to Philippine Senators—the Constituency Development Fund or CDF—and how we operationalize the mechanisms by which CDF would be used to build a personal vote.

3   The Constituency Development Fund

Because legislator effort to supply fiscal legislative particularism is not directly observable, previous studies have relied on proxies such as committee membership or number of "money bills" produced (Shiller, 1995; Stratmann and Baur, 2002; Wawro, 2002); subjective self- or third-party assessments (Heitshusen, Young and Wood, 2005; Miquel and Snyder, 2004); or from estimates of total pork barrel spending or actual pork barrel project outcomes (Besley and Case, 1995; Aidt and Shvets, 2012). However, these measures are not only products of individual legislator efforts but also of many other institutional and political influences. In our research, we use data on Constituency Development Fund (CDF), which meets the two conditions of the ideal proxy for fiscal legislative particularism: that the measure be uniquely attributed to the legislator's effort, and that it be associated with benefits that flow uniquely to the legislator's constituents (which, in the case of Philippine Senators, is the entire national electorate) (Keefer and Khemani, 2009).

3.1 The Philippine CDF Program

There are two categories of spending under the Philippine CDF program: (1) the Priority Development Assistance Funds (PDAF), and (2) the Department of Public Works and Highways–Congressional Allocations (DPWH–CA). These are budgetary resources with an "equal sharing" provision, over which legislators exercise the "power of the purse." Even though the release of CDF follows a set budgetary procedure, legislators have the authority to specify the projects to be funded.[5]

PDAF is a lump sum appropriation used either to augment the funds of national government agencies and government-owned corporations, or to support the priority development programs, both infrastructure and non-infrastructure projects (or pro-poor priority projects), of local government units.

DPWH–CA, on the other hand, is used for "hard" (or infrastructure) projects only, such as roads, bridges and school and hospital buildings. These projects involve high-level financing and are highly visible to constituents. Funds under this category are released only through the Department of Public Works and Highways but legislators specify the recipient subnational constituency.

For the years covered in our study, each Senator is allocated PHP200 million (roughly USD4.6 million) for CDF annually, under the General Appropriations Act (GAA). Although senators have the power of the purse, actual fund releases require navigating bureaucratic red tape and hence require effort in their part (see Appendix 1 for a summary of the procedures of fund release of CDFs). Again, unspent appropriations accumulate over the term of a Senator.

3.2 Using CDF to Build a Personal Vote

As previously hypothesized, Senators facing electoral pressures can use CDF to build a personal vote in a variety of ways. They can "bring home the pork", that is, target subnational constituencies, or, they can channel CDF to programmatic pursuits through

national government agencies while taking credit for it. Additionally, Senators can choose to "pass on the pork" in years when they are not standing in election and increase the utilization of pork in years when they are. To test our hypotheses, we operationalize how Philippine Senators would use CDF to build a personal vote into four dependent variables of interest and we create these measures for total CDF (PADF + DPWH–CA), for PDAF, and for DPWH–CA.

The first dependent variable is $pork\_utilization_{it}$, which is the total CDF actually released to Senator i in year t as a fraction of Senator i's CDF allocation in the same year. We hypothesize that pork utilization will be higher for a senator standing in election than for a senator not standing in election.

The other three dependent variables speak to the propensity of Senators to "bring home the pork". While we expect that reelectionist Senators will make more use of the pork-barrel, we expect them to avoid the risk of targeting pork to narrow geographic constituencies. One way to gauge the extent to which Senators bring home the pork is by examining the mix of targeted versus non-targeted CDF releases from Senator i's CDF allocation in year t. The CDF dataset details whether funds were released for priority development programs, both infrastructure and non-infra projects, to Local Government Units (LGUs) such as provinces, municipalities and cities (which we classify as targeted spending), or, for programmatic spending of National Government Agencies (NGAs) including government-owned corporations (which we call non-targeted spending). We create the dependent variable, $pork\_mix_{it}$, which is the ratio of targeted CDF releases to total CDF releases. Because targeted spending is the complement of non-targeted spending, this variable also captures the propensity of Senators to allocate CDF on programmatic spending. We hypothesize that all Senators will be wary of the risks associated with targeted pork-barrelling and thus the mix of pork will not differ between a senator standing in election and a senator not standing in election.

Another way by which Senators could bring home the pork, is by favoring their core

constituents from their home province. To capture this, we create a variable, $pork\_homeprov_{it}$, which is the ratio of CDF releases to Senator i's home province in year t to total targeted CDF releases. We again hypothesize that this variable will not differ between a senator standing in election and a senator not standing in election.

Finally, to "bring home the pork" might not necessarily imply that Senators would particularly favor their home province. It is possible that they would favor another subnational constituency for some reason (e.g. they would favor Metro Manila, being the most densely populated region of the country, or, alternatively, they would favor certain localities where there are swing voters). Capturing these possibilities in a single dependent variable presents a nontrivial challenge to researchers because Senatorial candidates have multiple and varied reasons for targeting pork to some narrow constituencies. We address the problem by constructing a variable that we call $pork\_hhi_{it}$. Rather than anticipating which subnational constituency will each Senator favor, we describe a Senator's choice in terms of the spread of targeted spending across all localities. We capture this spread by constructing the Herfindahl–Hirschman Index (HHI) (Hirschman, 1964) of targeted CDF releases. HHI is a statistical measure of concentration. This index ranges from $1/n$ to 1 (n being the number of subnational constituencies), and the higher the value of this index, the more concentrated or narrow the targeting of CDF, which means the Senator is favoring fewer subnational constituencies. Thus, without knowing which subnational constituencies are favored and for what reasons, this variable allows us to capture, in a general way, Senators' propensity to "bring home the pork". Again, our hypothesis is that there will be no difference between Senators standing and not standing for reelection—all will avoid targeting.

In the next section, we discuss our key independent variable of interest, $reelectionist$, and explain how the institutional design of senate elections in the Philippines allows us to identify a causal effect of electoral pressures on how Senators use pork to build a personal vote.

4 Econometric Strategy and Identification

The goal of our empirical analysis is to identify the effect of electoral pressures on how Philippine Senators use CDF to build a personal vote. For this, we need a source of plausible exogenous variation of reelection status among Senators. Here, we explain how our independent variable, *reelectionist*, is plausibly exogenous.

We exploit the constitutional design of senate elections in the Philippines as the source of variation in reelection status of Senators. Senate elections in the Philippines are such that all 24 senators serve 6–year terms, but that half of them are elected on a staggered basis every 3 years.[6] Thus, in a typical year, the variable *reelectionist* takes on a value of 0 for twelve of the senators and a value of 1 for the rest of them.

(Figure 1 about here.)

Figure 1 helps describe how this variable breaks down. The figure summarizes the reelection status of all Senators that appear in our dataset, which spans four electoral cycles (2001–2003, 2004–2006, 2007–2009, 2010–2012). Consider the electoral cycle 2001–2003. For this cycle, Senators Angara, Arroyo, Drilon, Estrada L., Flavier, Lacson, Magsaysay, Osmeña S., Pangilinan, Recto and Villar are only just serving the first three years of their 6-year term, hence, for these senators, the variable $reelectionist_{it}$ takes on a value of 0. On the other hand, Senators Barbers, Biazon, Cayetano R., Jaworski, Legarda, Oreta, Osmeña J. and Pimentel Jr. are coded as reelectionists for these years. Senators Honasan, Ople, Revilla and Sotto are all term-enders and are therefore considered non-reelectionists. (We also construct an indicator variable for being a term-ender for which we control in some of our econometric specifications to check the robustness of the results.)

In other contexts, estimating the 'reelectionist effect' as the difference between

$$E[dependent\_variable_{it}|reelectionist = 1] - E[dependent\_variable_{it}|reelectionist = 0]$$

would typically yield a biased estimate. This is because a 'selection effect' typically confounds the 'reelectionist effect' in which Senators standing in elections are systematically

different from those not standing in election, quite apart from their reelection status.

An important source of this selection bias arises from a comparison of different legislators representing different constituencies or different periods (see for example Besley and Case (1995)). The problem is that places or years in which the legislator is up for reelection may systematically differ from places or years in which the legislator is not standing in election quite apart from his/her reelection status. For example, it is possible that dominance of political parties tend to diminish in districts holding elections due to electoral volatility, which could increase the incentive of the legislator in that district to cultivate a "personal vote" (Keefer and Khemani, 2009; Primo and Snyder, 2010). In this case, the 'reelectionist effect' on these supply of pork could be biased away from zero because of political party considerations (distinct from the electoral pressures). In the context of Philippine Senators, this source of bias is not an issue because Senators are elected by plurality–at–large voting by the entire national electorate (i.e. the Block Vote), which means that both reelectionists and nonreelectionists confront the same institutional and political considerations and the same electoral constituency in any given year.

Another potential bias could also arise from a situation in which legislators share a common source of government funds and there is no cap on the amount of pork available. If legislators shared the same source of pork and reelectionists had the greater incentive to use pork funds as hypothesized, then a "reelectionist effect" would be biased away from zero, because such an increase would reflect not only the effort of the reelectionist per se, but also the decrease in pork of the non-reelectionists. From an econometric point of view, this is equivalent to a violation of the stable unit treatment value assumption (SUTVA), as the outcome of Senator i depends on the treatment (reelectionist) not only of i but also of $j \neq i$, which makes causal inference difficult. We circumvent this issue because there is no common pool problem in the case of CDF available to Philippine Senators. By law, all Senators receive equal amounts of annual CDF appropriations. This law has been on the books between 2000–2012 and the amount of appropriations is stable from election to

election across the period of our study.

Hence, we address the ubiquitous problem in the legislative politics literature of finding a source of variation in electoral pressures that is exogenous to legislator characteristics and the political environment. The idea of using staggered elections to identify variation in reelection status, by itself, is not novel in the literature (see for example Shepsle et al. (2009)). The novelty, as it applies in the context of the Philippines, is that staggered elections cause reelection status to differ among Senators without causing a differential change in the political environment—since they all respond to the same (national) constituency—or a differential change in their share of pork allotments—since they are all entitled to equal amounts of CDF appropriations.

In short, the constitutional design of staggered *and* nation-wide senate elections, combined with the unique features of CDF, make our independent variable, *reelectionist*, plausibly exogenous. One way to test wether this exogeneity assumption holds is by checking balance in observable characteristics between reelectionists and non-reelectionists. Table 1 shows evidence that characteristics of Senators are, in fact, well-balanced between the reelectionist group and the non-reelectionist group.[7]

(Table 1 about here.)

To formally test our hypotheses, we run Ordinary Least Squares (OLS) regressions based on the following specification:

$$dependent\_variable_{it} = \alpha + \beta reelectionist_{it} + \mathbf{X}'\Gamma + \epsilon_{it} \tag{1}$$

where i denotes a Senator and t a year. $dependent\_variable_{it}$ stands for the four dependent variables that we constructed and explained in the previous section. The independent variable, $reelectionist_{it}$, is an indicator variable that takes on a value of 1 if a senator is up for reelection in the next senatorial race, and 0 otherwise. The vector $\mathbf{X}$ is a set of controls including gender, years in office, an indicator for holding an official post (i.e. senate

president, majority floor leader, minority floor leader, or president *pro tempore*), an indicator for being a celebrity Senator (i.e. was formerly a national show business or media personality) and an indicator for being a term-ender, as well as year fixed effects. ϵ_{it} is an error term. In all regressions, we report Huber/White robust standard errors clustered at the Senator level.

5   Results and Analysis

As argued above, legislators will use pork to build a personal vote in ways that would help them signal ability and minimize the electoral costs of targeting narrow constituencies. We now present empirical evidence that supports this assertion.

Descriptive statistics presented in Panel B of Table 1 provide preliminary evidence in support of our hypotheses. Senatorial reelectionists are more likely to utilize CDF than their nonreelectionist counterparts. They are no more likely to target CDF to their home province and, finally, they are no more likely to concentrate targeted CDF to a few subnational constituencies. This simple picture also raises the possibility that they are less likely to allocate CDF to targeted spending–contra our hypothesis of no difference. To investigate further, Tables 2, 3, and 4 present the formal tests and robustness checks of these hypotheses based on Ordinary Least Squares (OLS) regressions using Eq. 1 above.

(Table 2 about here.)

Column 1 of Table 2 presents the correlation between total CDF utilization and being a reelectionist. The coefficient estimate suggests that Philippine Senators up for reelection utilize their annual lump sum allocations 15 percentage points higher than Senators not standing in election. As shown in column 2, this estimated effect is robust to controlling for gender, an indicator for assuming an officer position (i.e. senate president, majority- or minority-floor leader, or president *pro tempore*), years in office, an indicator for being a celebrity, as well as an indicator for being a last-termer. Controlling for year fixed effects

causes the magnitude of the coefficient estimate to drop down to 12 percentage points, however, it remains statistically significant at the 5% level. This estimated effect of electoral pressures on total CDF utilization is substantial: given a mean CDF utilization rate of 54 percentage points among all Senators, the estimate implies that Senators standing in elections increase efforts to utilize pork by 22%.

We then look at how electoral pressures impact the utilization rates of the two subcomponents of CDF: (1) PDAF and (2) DPWH–CA. Results are reported in columns 4–6 and 7–9 of Table 2, respectively. We find substantial and statistically significant effect of being a reelectionist on PDAF utilization rate, however, we find small and statistically insignificant effect on DPWH–CA utilization rate. Recall that PDAF are funds used mostly for non-infrastructure projects (labeled in the releases as "pro-poor priority development projects") of local government units as well as to supplement the programmatic projects of government agencies. On the other hand, DPWH–CA are used only for infrastructure projects such as roads, bridges, and schools and hospital buildings among others. This difference could explain why we find a 'reelectionist effect' in PDAF but not in DPWH–CA. Infrastructure projects often involve high-level financing and require Senators to utilize as much of their annual allocations as possible to realize them. In contrast, most of PDAF projects need not require high-level financing, and because unutilized funds carry over from year to year within a term, Senators can afford to limit or defer PDAF utilization in years when they are not standing in election and backload utilization in years when they are up for reelection.

(Table 3 about here.)

Next, we turn to Senators' propensity to "bring home the pork" when they are standing in election. As previously discussed, we construct three outcome variables to capture this behavior. In Table 3 we look at the first measure—the ratio of targeted pork to total pork releases. We expected that legislators would avoid increasing their targeted spending in an election year, and so hypothesized null results. Column 1 of Table 3 actually

shows a negative and statistically significant effect of being a reelectionist, suggesting that Senators up for reelection are less likely to bias spending in favor of projects targeted to subnational constituencies. Put differently, senatorial reelectionists are actually more likely to divert CDF to national government agencies for programmatic spending.

The sign of the coefficient estimate is consistently negative, though statistical significance disappears once we control for observable covariates. This weak evidence suggests that Senators may actually reduce the amount of targeted spending in election years in an effort to avoid the costs of playing favorites. Looking at the PDAF subcomponent of total CDF, we do not find statistically significant effects of being a reelectionist, though we still see the negative sign across all three specifications. (Note that, by definition, all of DPWH–CA spending is classified as targeted because they are spent on infrastructure projects of recipient subnational constituencies, hence we cannot make a similar test looking at the DPWH–CA subcomponent.)

(Table 4 about here.)

We next analyze how Philippine Senators allocate the targeted fraction of CDF across the different subnational constituencies. We hypothesized that reelectionists will behave no differently than nonreelectionists in terms of favoring their home province. We report the results in Table 4.

Looking at Total CDF (columns 1–3 of Table 4), as expected we find no statistically significant effect of being a reelectionist on the amount of pork allocated to Senators' home province as a ratio of total targeted pork. Focusing on the PDAF subcomponent, we do not find any statistically significant 'reelectionist effect.' However, looking at the DPWH–CA subcomponent of CDF, we actually find a substantial and statistically significant *negative* effect of being a reelectionist. The negative sign is consistent with what we find in Table 3. Senators tend to reduce spending on pork targeted to their home province in an effort to avoid the electoral costs of favoring their political strongholds. Recall that DPWH–CA are funds spent on infrastructure projects that are highly visible to

voters. This could explain why senatorial reelectionists are particularly mindful of not playing favorites when it comes to the allocation of DPWH–CA.

(Table 5 about here.)

Lastly, in Table 5, we look at wether Senators concentrate the allocation of CDF to a few subnational constituencies whenever they are standing in election. We use the Hirschman-Herfindahl Index of CDF to capture Senators' propensity to bring home the pork in this manner. We do not find any statistically significant effect of being a reelectionist on concentrating spending to a few provinces.

In sum, Philippine Senators facing electoral pressures use pork to build a personal vote. But they do so in ways that account for the electoral costs of targeting narrow constituencies as well as the need to signal ability. In general, Senators standing in election behave no differently than their nonreelectionist counterparts in terms of targeting subnational constituencies. If anything, we find evidence that reelectionists limit electorally costly, targeted spending. However, Senators substantially increase their efforts to utilize pork in years when they are standing in election.

6   Conclusion

When it comes to the effect of electoral pressures on fiscal legislative particularism (pork), the standard prediction in the literature is that legislators facing reelections will seek to "bring home the pork" to narrow constituencies or parochial interests. We subject this claim to empirical analysis in a context in which targeting narrow constituencies entailed electoral costs. We find that electoral pressures do not always cause legislators to bring home the pork. Instead, we find that when pork is available but targeting narrow constituencies has adverse electoral consequences, legislators standing in elections are averse to allocating pork to geographically targeted spending. Moreover, they allocate any such targeted spending away from their political strongholds. However, they find other ways to

use pork to build a personal vote. In particular, we find that legislators pass on the pork in years when they are not standing in election and backload pork releases to when they are.

Put differently, legislators facing electoral pressures can choose *whom* to bring home the pork and *when* to do so to help them build a personal vote. The innovation of this research is in suggesting that such decisions are a consequence of the tradeoff that legislators face between the desire to signal ability and the need to minimize the adverse electoral consequences of differential pork allocation.

This theoretical insight has broad implications in the production of public policy. Legislators responding to electoral pressures will use pork in varied ways to build a personal vote. Hence, policymakers desiring to improve efficiency in public spending ought to account for the factors that shape the tradeoffs facing legislators. For instance, increasing the size of the legislative district may increase the electoral costs of targeting narrow constituencies, which my then lessen the incentive of legislators to "bring home the pork". But where pork is readily available and legislators have a lot of leeway, they may then respond by changing the timing of pork utilization. This has implications on the efficiency and welfare effects of fiscal legislative particularism, although these are beyond the scope of this research and are left for future pursuits.

As our next steps, we intend to explore how electoral pressures shape legislative behavior in terms of the mix of local and national legislations sponsored in the Senate, credit-claiming, and campaign strategies.

Appendix

Appendix 1: Summary of the procedure for the release of Constituency Development Funds (CDF).

The procedures governing the identification, fund release, implementation, and reporting of projects funded under the PDAF and DPWH-CA is as follows:

1. Upon approval of the General Appropriations Act (GAA), the President, through the Department of Budget and Management (DBM), decides on the schedule of fund releases (i.e., number of tranches, amount per tranche, and the dates of release) for PDAF and DPWH–CA.

2. The legislators then prepare their respective lists of proposed projects in accordance with the menu of qualified projects spelled-out in the GAA. The lists of projects are submitted to the House Committee on Appropriations or the Senate Committee on Finance. They include the nature or description of the project, project location, fund requirement or project cost, and implementing agency.

3. The legislators' lists are then jointly endorsed to DBM by the Appropriations Chair and the Speaker in the case of the House of Representatives, and the Finance Chair and the Senate President in the case of the Senate.

4. The DBM reviews and evaluates the legislators' lists to ascertain their compliance with the project menu in the GAA. The review is conducted by the DBM Budget and Management Bureau G for the PDAF, and Budget and Management Bureau A for the DPWH–CA. Upon satisfactory compliance, the DBM Secretary issues the Special Allotment Release Order (SARO). This document obligates funds for a project to its implementing agency. SARO copies are also given to the DBM Budget Technical Services, DBM Budget and Management Bureaus, DBM Regional Office, and the Commission on Audit (COA). A Notification Letter is also sent to the legislator concerned.

5. The cash allocations are subsequently released based on the national government

cash program and percentage of project completion. Notice of cash allocation (NCA) is sent to the government depository bank, and Advice of Notice of Cash Allocation Issued (ANCAI) is sent to the implementing agency (copy furnished to legislator), signaling that agency can already pay its obligation with its contractor.

Notes

[1]See Keefer and Khemani (2009) and Primo and Snyder (2010) for more on the selection bias concern.

[2]For similar approaches in the U.S. context see e.g. Shepsle et al. (2009); Lazarus and Steigerwalt (2009); Chen (2010); for Japan see Nemoto and Shugart (2013).

[3](Nemoto and Shugart, 2013) draw a similar distinction between personal vote vs. local/narrow targeting in their analysis of elections to the national tier of the Japanese House of Counsellors. Like their counterparts in the Philippines, Japanese Counsellors are elected from national districts. (Nemoto and Shugart, 2013) find that under SNTV, which produces incentives similar to those of the Block Vote, parties nominate candidates with strong personal vote-earning attributes, but avoid candidates who rely on narrow/local bases of support.

[4]See for example Sen. Bongbong Marcos' website, http://www.bongbongmarcos.com/projects/, or Sen. Chiz Escudero's website, http://www.chizescudero.com/index.php/pda-fund/summary.

[5]In fact, jurisprudence supports legislators' "power of the purse" over CDF. In the case of Philippine Constitution Association vs. Enriquez, et al. (G.R. No. 113105, August 19, 1994), the Supreme Court ruled that the power of the purse vested in Congress "includes the power to specify the project or activity to be funded under the appropriation law." This ruling has been reaffirmed in Sarmiento, et al. vs. The Treasurer of the Philippines, et al. (G.R. No. 125680 & 126313, September 4, 2001). However, in November 2013, the Supreme Court declared this "power of the purse" unconstitutional (G.R. No. 208566, 208493, & 209251), and the release of CDF has been suspended since.

[6]Senators face a 2-consecutive 6-year term limit but may run again after skipping one electoral cycle. For example, Sen. Edgardo Angara, the longest serving senator to-date, served twelve years from 1986-1997, skipped the 1998-2000 electoral cycle, then ran again in 2001 and has since been holding office. He is forced to step down in 2013 when his term limit binds.

[7]The number of observations in the nonreelectionist group includes term-enders, accounting for the large differential in number of observations.

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Tables

Table 1: Summary Statistics and Balance Tests.

Variable	Full Sample	Non Relectionist (NR)	Reelectionist (R)	P-values NR=R
Number of observations	160	101	59	
Panel A: Observables				
Female (indicator)	0.15	0.14	0.17	0.686
	(0.36)	(0.35)	(0.39)	
Years of experience	8.34	8.78	7.59	0.221
	(5.41)	(5.99)	(4.19)	
Officer (indicator)[1]	0.17	0.15	0.20	0.493
	(0.38)	(0.36)	(0.41)	
Celebrity (indicator)	0.24	0.26	0.20	0.538
	(0.43)	(0.44)	(0.41)	
Term-ender (indicator)[2]	0.11	0.17	0.00	0.000
	(0.31)	(0.38)	(0.00)	
Panel B: Outcome Variables				
Total CDF				
Utilization	0.54	0.48	0.63	0.005
	(0.36)	(0.34)	(0.39)	
Ratio of Targeted to Total	0.65	0.68	0.59	0.099
	(0.35)	(0.36)	(0.34)	
Targeted to Home Province	0.19	0.21	0.16	0.328
	(0.28)	(0.29)	(0.26)	
Herfindahl Index of Targeted	0.27	0.26	0.29	0.539
	(0.27)	(0.26)	(0.28)	

Notes: Numbers reported are means. Numbers in parenthesis are standard deviations. P-values are for t-tests that mean of variables is equal between the two groups. [1]Officers include the senate president, majority floor leader, minority floor leader, and president *pro tempore*. [2]All term-enders are coded as nonreelectionists. [3]All funds in DPWH–CA are classified as targeted since all are infrastructure spending allocated to subnational constituencies.

Table 2: Electoral Pressures and Pork Utilization

	Total CDF				PDAF			DPWH–CA	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Reelectionist	0.15***	0.15***	0.12**	0.12**	0.12*	0.13*	0.074	0.084	0.045
	(0.050)	(0.054)	(0.049)	(0.058)	(0.061)	(0.065)	(0.056)	(0.059)	(0.051)
Female = 1		0.049	0.040		0.082	0.096		-0.027	0.051
		(0.060)	(0.073)		(0.080)	(0.086)		(0.079)	(0.045)
Officer = 1		0.15*	0.12*		0.15*	0.15*		0.03	0.00
		(0.080)	(0.065)		(0.086)	(0.083)		(0.061)	(0.067)
Experience (years)		0.012*	0.018***		0.023***	0.022***		0.01	0.01
		(0.0064)	(0.0054)		(0.0064)	(0.0061)		(0.0080)	(0.0066)
Celebrity = 1		0.099*	0.11*		0.097	0.081		-0.0043	-0.022
		(0.052)	(0.058)		(0.066)	(0.072)		(0.067)	(0.052)
Last-termer = 1		-0.057	-0.089		-0.13	-0.16		-0.0025	0.041
		(0.12)	(0.11)		(0.14)	(0.15)		(0.16)	(0.11)
Constant	0.48***	0.33***	0.39***	0.59***	0.35***	0.58**	0.86***	0.77***	-0.097
	(0.041)	(0.067)	(0.12)	(0.049)	(0.068)	(0.22)	(0.040)	(0.10)	(0.097)
Year Fixed Effects	NO	NO	YES	NO	NO	YES	NO	NO	YES
Observations	160	160	160	159	159	159	80	80	80
R-squared	0.039	0.117	0.400	0.021	0.158	0.229	0.013	0.041	0.446

Note: Huber/White robust standard errors clustered at the senator level in parentheses.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 3: Electoral Pressures and Ratio of Targeted Pork to Total Pork

	Total CDF			PDAF		
	(1)	(2)	(3)	(4)	(5)	(6)
Reelectionist	-0.090*	-0.080	-0.067	-0.035	-0.028	-0.043
	(0.053)	(0.054)	(0.056)	(0.056)	(0.057)	(0.063)
Female $= 1$		0.045	0.060		0.049	0.055
		(0.079)	(0.083)		(0.053)	(0.057)
Officer $= 1$		0.099	0.091		0.064	0.055
		(0.060)	(0.058)		(0.079)	(0.065)
Experience (years)		0.0069	0.0079		-0.0026	0.0020
		(0.0060)	(0.0061)		(0.0063)	(0.0060)
Celebrity $= 1$		0.17**	0.16**		0.10	0.10
		(0.069)	(0.070)		(0.074)	(0.070)
Last-termer $= 1$		-0.0063	-0.040		0.058	0.039
		(0.14)	(0.15)		(0.13)	(0.13)
Constant	0.68***	0.56***	0.40***	0.50***	0.47***	0.52***
	(0.050)	(0.088)	(0.11)	(0.043)	(0.081)	(0.15)
Year Fixed Effects	NO	NO	YES	NO	NO	YES
Observations	160	160	160	159	159	159
R-squared	0.015	0.084	0.145	0.002	0.028	0.111

Note: Huber/White robust standard errors clustered at the senator level in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table 4: Electoral Pressures and Ratio of Pork to Home Province to Total Targeted Pork

	Total CDF			PDAF			DPWH–CA		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Reelectionist	-0.044	-0.054	-0.058	-0.0010	0.0016	-0.012	-0.092*	-0.11**	-0.12**
	(0.044)	(0.047)	(0.044)	(0.062)	(0.067)	(0.066)	(0.047)	(0.047)	(0.047)
Female $= 1$		-0.11	-0.095		-0.052	-0.038		-0.14	-0.15
		(0.089)	(0.086)		(0.093)	(0.089)		(0.090)	(0.096)
Officer $= 1$		-0.11*	-0.10		-0.16***	-0.15***		-0.084	-0.087
		(0.065)	(0.061)		(0.058)	(0.049)		(0.079)	(0.082)
Experience (years)		-0.0013	0.00061		-0.0033	0.00030		-0.016	-0.018*
		(0.0066)	(0.0067)		(0.0062)	(0.0058)		(0.010)	(0.010)
Celebrity $= 1$		0.0093	-0.011		0.12	0.11		-0.098	-0.11
		(0.091)	(0.086)		(0.082)	(0.081)		(0.12)	(0.12)
Last-termer $= 1$		-0.11	-0.10		-0.060	-0.039		-0.019	0.018
		(0.078)	(0.079)		(0.088)	(0.096)		(0.12)	(0.12)
Constant	0.21***	0.27***	0.23**	0.22***	0.26***	0.60*	0.25***	0.46***	0.18
	(0.044)	(0.086)	(0.089)	(0.044)	(0.093)	(0.31)	(0.059)	(0.14)	(0.14)
Year Fixed Effects	NO	NO	YES	NO	NO	YES	NO	NO	YES
Observations	160	160	160	159	159	159	80	80	80
R-squared	0.006	0.053	0.105	0.000	0.064	0.118	0.025	0.156	0.184

Note: Huber/White robust standard errors clustered at the senator level in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Table 5: Electoral Pressures and Herfindahl–Hirschman Index of Targeted Pork

	Total CDF				PDAF			DPWH–CA	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Reelectionist	0.029	0.024	0.020	-0.040	-0.039	-0.048	0.11	0.097	0.083
	(0.047)	(0.047)	(0.045)	(0.053)	(0.052)	(0.050)	(0.077)	(0.091)	(0.080)
Female = 1		-0.055	-0.024		-0.00043	0.027		-0.0094	-0.031
		(0.064)	(0.060)		(0.060)	(0.055)		(0.11)	(0.11)
Officer = 1		-0.12**	-0.10**		-0.17***	-0.15***		-0.057	-0.043
		(0.045)	(0.040)		(0.053)	(0.052)		(0.10)	(0.075)
Experience (years)		0.0057	0.0091**		0.0018	0.0052		-0.0072	-0.0030
		(0.0043)	(0.0040)		(0.0057)	(0.0054)		(0.0070)	(0.0079)
Celebrity = 1		0.058	0.031		0.12**	0.095*		-0.079	-0.057
		(0.050)	(0.048)		(0.055)	(0.055)		(0.083)	(0.084)
Last-termer = 1		-0.13*	-0.11		-0.10	-0.078		-0.021	-0.028
		(0.071)	(0.076)		(0.091)	(0.098)		(0.11)	(0.091)
Constant	0.26***	0.25***	0.10	0.30***	0.30***	0.93***	0.37***	0.47***	1.06***
	(0.030)	(0.069)	(0.080)	(0.036)	(0.078)	(0.072)	(0.046)	(0.11)	(0.11)
Year Fixed Effects	NO	NO	YES	NO	NO	YES	NO	NO	YES
Observations	160	160	160	159	159	159	80	80	80
R-squared	0.003	0.046	0.242	0.004	0.070	0.191	0.027	0.052	0.277

Note: Huber/White robust standard errors clustered at the senator level in parentheses.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Figures

Figure 1: Reelection Status of Philippine Senators, 2001–2012.

Senator	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Angara												
Aquino											1	
Arroyo												
Barbers												
Biazon												
Cayetano_A												
Cayetano_P												
Cayetano_R												
De_Castro					2							
Drilon												
Enrile												
Escudero												
Estrada_J												
Estrada_L												
Flavier												
Gordon												
Guingona												
Honasan												
Jaworski												
Lacson												
Lapid												
Legarda												
Lim								3				
Madrigal												
Magsaysay												
Marcos												
Ople												
Oreta												
Osmena_J												
Osmena_S												
Pangilinan												
Pimentel_III												
Pimentel_JR												
Recto												
Revilla												
Revilla_JR												
Roxas												
Santiago												
Sotto												
Trillanes												
Villar												
Zubiri												

Notes: Cells shaded in light green are for 'Non-reelectionists.' Cells in dark green are for 'reelectionists,' and cells in orange are for last-termers. Cells in pale red are footnoted as follows. [1]Sen. Aquino left his post after only serving for three years in the Senate because he decided to run for the presidency in 2010. His first three years are not coded as 'reelectionist' because his decision to run for presidency was not premeditated and was only brought about by the death of his mother, Ex-President Corazon Aquino, in late 2009. [2]Similarly, Sen. De Castro left his post after his first three years to run for the vice-presidency. His first three years are coded as 'reelectionist' because his decision was premeditated. [3]Sen. Lim also left his post after three years to run as the City Mayor of Manila, and so his first three years are similarly coded as 'reelectionist.'