

# Fiscal federalism and distributive politics in India\*

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## Abstract

Why do some subnational governments receive more transfers from the central government than others? Within the distributive politics literature, there is a debate over whether core supporters or swing supporters of the incumbent political party receive more benefits. In contrast to previous work, this study introduces how the type of government predicts whether core versus swing supporters receive relatively more transfers. Electoral incentives—the underlying causes of political bias in distributive politics—are different for majority governments versus coalition governments. As a result, within parliamentary systems, majority governments tend to target their core supporters relatively more and coalition governments tend to target their swing supporters relatively more. Furthermore, this study adds hypotheses to account for the context of federalism. Subnational governments aligned with the prime minister's party tend to receive more fully funded grants whereas coalition partners and unaligned states tend to receive more partially funded grants. Using India as a case study from 1972 to 2008, initial evidence provides support for the argument.

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# 1 Introduction

Why do some subnational governments receive more transfers from the central government than others? While there is robust support for political bias,<sup>1</sup> mixed results exist between two competing causal relationships. There is a debate about whether core supporters or swing supporters of the incumbent political party receive more political benefits. Within parliamentary and federalist contexts, this is a particularly interesting debate. Recent attention to the varying degree of success in decentralization pushes political bias to the forefront of the distributive politics debate (Weingast 2009).

Intergovernmental transfers (IGT's) are the focus within fiscal federalism. One side of the debate views the partisan bias as rewarding the Center's strongest allies, and the second side views the partisan bias as rewarding the Center's swing supporters. Center—the national government—is comprised of various state delegations. Thus, “core” refers to states in which the state's legislative delegation has a high percentage of seats aligned with the prime minister's party, and “swing” refers to a subset of core states that have narrow electoral margins and coalition partners. Both sides of the debate have compelling reasons to become targets of IGT's (for examples of mixed evidence see: Cox (2010), pg. 437, or Arulampalam et al. (2009), pg. 104.). It is important to understand when core versus swing supporters receive more transfers for both theoretical and empirical reasons. Understanding when to employ either theory helps the literature explain actual cases. This study provides an opportunity to explain political conditions that favor either core versus swing theories within the context of federalism.

Essentially, electoral conditions will shift the prime minister's focus more or less toward core supporters relative swing supporters. Context matters because electoral incentives—the underlying causes of political bias in distributive politics—are different for majority governments versus coalition governments. Majority governments tend to target their core supporters relatively more and coalition governments tend to target their swing supporters relatively more. Furthermore, understanding why some subnational states receive more transfers also requires looking at the spe-

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<sup>1</sup>Previous studies find that distribution mirrors the electoral incentives of politicians in power, or at least that policies pursued by the government tend to favor certain voting blocs (Boix 1998; Hibbs 1977; Tufte 1980). In fact, there is broad acknowledgment, both in theory and data analyses, that such political bias exists (Golden and Min 2013).

cific type of transfer. Subnational governments aligned the prime minister's party tend to receive more fully funded grants whereas coalition partners and unaligned subnational governments tend to receive more partially funded grants.

India, between 1974 and 2008, is an appropriate case because there are two significant changes to the type of Center government. First, there is a decline in the Congress Party, which previously enjoyed majority governments. This leads to a rise in opposition parties, thereby creating coalition governments. Thus, with data from 1972 to 2008, India experiences various forms of government, albeit some more than others. There exists enough variation to illustrate how changes in the type of government over time subsequently change the target of politically biased intergovernmental transfers.

The article proceeds by detailing how political bias influences intergovernmental transfers and connects the debate to the broader distributive politics and federalism literature. Next, this study develops a theory for how type of government influences fiscal transfers. Finally, an empirical model tests the hypotheses using India as the application. Results, conclusions and opportunities for future research complete the article.

## 2 Theory

Originally, the normative approach to federalism suggests institutions are used to improve governance via power sharing, but this approach does not account for how opportunistic individuals influence institutions.<sup>2</sup> Early studies on federalism largely focus on normative implications of federalism relative to state building and governance. These economic theories of federalism focus on the positive implications of decentralization or the market preserving and competition effect in which federalism enhances growth (Weingast 1995). The assumption is that political actors are benevolent welfare maximizing actors, and decentralization decreases the options available to politicians for corruption and allows policy competition (Tiebout 1956). Yet, such recommendations leave out the possibility of other incentives facing political elites, in addition to the society's welfare.

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<sup>2</sup>Watts (1998) and Wibbels (2006) provide an overview of the normative authors within federalism literature and also introduce the more recent empirical studies underlying federalism.

Political actors control public institutions, and as a result, institutions necessarily become subject to the actors' opportunistic, political behaviors. In other words, "public officials have goals induced by political institutions that often diverge from maximizing citizen welfare (Weingast 2009). In practice, public officials within federalist institutions either have preferred jurisdictions or simply use power for rent seeking behavior. Within the context of fiscal federalism this implies a preference toward certain regions relative to the amount of intergovernmental transfers, i.e., taxes, grants, and loans, and therefore, partisan bias helps explain why some receive more goods from government institutions.

More recent literature begins to relax the assumption of welfare maximizing political actors, which leads to a second generation fiscal federalism literature (Oates 2005; Qian and Weingast 1997; Weingast 2009). According to Oates (2005), second generation fiscal federalism examines federalism in which the institutions have utility maximizing individuals facing imperfect information. Individuals derive utility not from *national* fiscal utility but from incentives for maximizing their *personal, opportunistic* utility. Put differently, first generation fiscal federalism (FGFF) assumes welfare maximizing agents whereas second generation fiscal federalism (SGFF) assumes personal utility maximizing agents. An agent's personal utility could include the welfare of the federal systems, but more often, studies show how political incentives present opportunities to use fiscal federalism in order to maximize an agent's electoral gains (Oates 2008). For politicians, the rent seeking behavior results from their perceived electoral fortune.

Weingast (2009) explains that SGFF concerns the inefficiencies in decentralization and the inefficiencies in intergovernmental transfers. This is not to say that national governments are always corrupt. Intergovernmental transfers (IGT's) surely provide welfare benefits to many. Yet, at its core, federalism is about appeasing political competition between levels and actors in government (Treisman 1999), and therefore, it is likely that such political competition continues into the everyday administration of federal institutions. This connects back to Riker (1964) in which federalist institutions result from the bargaining among political elites, and therefore, it is likely that such political competition continues within the institutions, especially relative to the administration IGT's. In sum, there are indeed reasons why FGFF's pure welfare maximizing assumptions

might not hold in all cases.

Intergovernmental transfers are likely to receive political bias because they are controlled by political actors. As a result, models from the distributive politics literature provide insights. The question is why do some states receive more transfers from the central government, and the distributive politics literature produces two hypotheses. First, core supporters of the political actor receive more transfers, thereby suggesting that actors will bias toward their key constituencies. However, equally as plausible, the second hypothesis posits that swing supporters—supporters with a higher likelihood of switching allegiance compared to core supporters—receive more transfers. The logic is that actors will focus on swing supporters in order to maintain their electoral advantage over opposing actors. For fiscal federalism, this means that intergovernmental transfers will either target core or swing supporters of the prime minister. The prime minister’s party controls government and determines grants from the Center (national government) to state governments. However, it is not enough to identify core and swing supporters. There is a debate between theories on core versus swing supports in the distributive politics literature. This debate carries over into this study. Insights from this debate need refinement in order to fully map explanations onto fiscal federalism.

Section 2.1 details the distributive politics literature in more detail in order to develop testable implications for when the target of intergovernmental transfers is core versus swing. Section 2.2 introduces federalism into the distributive politics literature and produces additional hypotheses to capture the second government level’s effect on transfer targets.

## **2.1 Existing theories for the core vs. swing debate**

Two formal models represent the foundation of distributive politics. The first model is from Cox and McCubbins (1986) and second is from Dixit and Londregan (1996, 1998). Both models create the microfoundations for empirical studies of partisan bias in intergovernmental transfers. Cox and McCubbins build off models of spatial voting in which a core proposition is that the closest supporters should see the largest share of benefits from a risk adverse candidate (p. 379). The authors then connect the proposition to modern patronage studies and illustrate how electoral candidates favor promises that redistribute goods to their existing supporters in order to maintain the existing

voter base. Put differently, risk-adverse politicians will not risk upsetting the political system that gets them into power, thereby causing them to devote resources to supporters in order to maintain their continued support. For fiscal federalism, this means politicians will channel intergovernmental transfers toward their strongest supporters in order to maintain the winning support base. The electoral incentives are clear for the politician, thereby causing a shift away from pure welfare maximizing paradigms. That is why core supporters have support in the literature.

Similarly, Dixit and Londregan also illustrate the effect of elections on distorting the assumptions of FGFF. However, in contrast to Cox and McCubbins, Dixit and Londregan find that groups with high support for the politician do not receive greater funds because they are “taken for granted by one party and written off by the other” (p. 157-8). Thus, the overall finding is that swing voters receive more intergovernmental funds. Swing voters are those with unclear or changing political affiliations that often decide elections, and in this model, the electoral incentive for politicians is to channel benefits to swing voters in order to ensure their support in elections. In narrow elections, swing voters likely decide the electoral outcome. That is why swing supporters have support in the literature.

Several studies employ them while developing a theory for political bias in fiscal federalism. Unfortunately, the models provide different predictions. One predicts so-called swing supporters receive more political goods and the other predicts that so-called core supporters receive more political goods. In this study about intergovernmental transfers, core supporters describe states in which the prime minister’s party has a majority of seats in the state’s legislative delegation. Swing supporters describe states in which the prime minister’s party has a narrow lead in the state’s legislative delegation. Thus, there is consensus that political bias determines transfers, but it is less clear whether core states versus swing states receive more. This study develops hypotheses for when either model of distributive applies to fiscal federalism.

The reason why either model yields different prediction is because each model begins with different underlying assumptions about the incentive structure (Cox 2010). Cox and McCubbins view the partisan bias as rewarding core supporters while Dixit and Londregan view the partisan bias as targeting swing supporters. This contradiction is a problem for the theory and empirical ex-

pectations. In some cases, it makes sense why swing states receive more because such resources can help decide close elections. However, it is equally logical that highly supportive (core) states receive more transfers in order to reward loyal states and maintain the winning support base. Because both have logical underpinnings, it is important to study for both theory and empirical reasons.

Both models—the core supporters prediction and the swing voters prediction—receive support from empirical studies, thereby causing them to persist in the literature with little critical dialogue.<sup>3</sup> Because of the mixed empirical evidence, both core and swing hypotheses persist, but fortunately, this is not a new debate. Intergovernmental transfers are just one form of distributive politics, and the broader distributive research already engages with this debate. As a result, this study is able to use existing theories to inform the political bias of intergovernmental transfers. Previous distributive politics literature produces theories for when either model is correct, and as a result, this study is an opportunity to test these existing theories using intergovernmental transfers.

Bartels (1998), Cox (2010) and Rodden and Wilkinson (2004) argue that each model explains specific circumstances and therefore each model applies to specific electoral circumstances. In other words, both models are correct and their usefulness depends upon either model’s assumptions mapping to the particular cases. The key is determining when core versus swing supporters are more important. Each model assumes parties focus more on one or the other, and therefore, the key is determining when the prime minister thinks core versus swing supporters are the more pivotal group. Fortunately, there is a large literature identifying the so-called pivotal player in politics. By understanding when either the core versus swing supporter becomes the pivotal player, the appropriate model can be used to predict the transfer target.

It makes sense why Bartels (1998), Cox (2010) and Rodden and Wilkinson (2004) use legislative bargaining literature to address the core versus swing debate because legislative politics focuses heavily upon pivotal players. Identifying the influence of various legislators on legislation shows how specific actors influence outcomes. Legislative bargaining literature relates because of its focus on the pivotal voter, i.e., the idea that legislation changes the most in order to suit the voter that puts one side over the winning threshold. Studies, such as Krehbiel (1998) or Mayhew

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<sup>3</sup>For an overview of empirical studies of the two approaches see: Cox (2010), pg. 437, or Arulampalam et al. (2009), pg. 104.

(1974), illustrate how electoral and institutional incentives shape the degree to which policy outcomes focus on specific types of voters. Intergovernmental transfers, e.g., grants, are created by the prime minister's party in order to fund various projects. As a result, projects and funding are determined by legislative politics because the prime minister needs to abide by her government's constraints within the legislature. Thus, this allows legislative politics literature to inform studies on intergovernmental transfers. Researchers can use the existing legislature literature to identify when actors become the pivotal actor, i.e., when swing versus core supporters become the pivotal group.

Cox (2010) covers legislative bargaining literature to illustrate how persuasion and mobilization determine when the core versus swing models are useful. To summarize Cox, the less persuasion a party thinks possible, and the more mobilization it thinks possible, the more it concentrates its transfers on its core supporters. Core supporters receive relatively more of the party's transfers when the party has incentive to mobilize, and swing supporters receive relatively more of the party's transfers when the party has incentive to persuade.

Importantly, legislators serve as proxies for identifying voters, which means that targeting legislators as pivotal supporters translates into targeting pivotal supporters. Otherwise, the same terms apply. Mobilization is easy when the party has a high number of supporters because mobilization refers to contacting existing supporters. Persuasion, on the other hand, refers to contacting swing supporters because such supporters need persuasion against switching to the opposition. As a result, when the government has a strong majority, the prime minister views incentives to mobilize the existing support base, thereby focusing on core supporters. However, if the prime minister has a narrow majority of seats in the legislature then she views incentives for persuading swing supporters in order to maintain her narrow majority government. Incentives to focus on persuasion and thus focus upon swing supporters continues into coalition governments because the prime minister wishes to attain the most support within the coalition and also maximize her bargaining power within the coalition.

These predictions apply to fiscal federalism. Majority governments will be able to target their core supporters with relatively more intergovernmental transfers, i.e., grants. But, as the



vote share of the prime minister's party decreases then swing supporters will become pivotal actors insofar as being important supporters for maintaining the prime minister's power. It is less important to identify the specific pivotal player. It is only important to identify whether the pivotal player is more or less likely to be core versus swing. Again, both Cox and McCubbins (1986) and Dixit and Londregan (1998) are correct, and therefore, it is possible that both core and swing supporters receive political goods. Here, however, it is important to determine what influences the prime minister to focus more on core versus swing supporters and vice-versa. In majority governments, the prime minister is more apt to focus on core supporters. However, at some point her support base decreases such that she becomes more concerned about keeping her government, thereby shifting focus more toward swing supporters.

Rodden and Wilkenson's (2004) argument also results from legislative bargaining literature, which predicts how parties in control of the legislature change their policy portfolio in order to maintain control over the legislature's leadership positions. This is quite similar to Cox's explanation, as explained above. Rodden and Wilkenson reference studies on building coalitions in which parties seeking to form coalitions must make concessions in their portfolio relative to the strength of the coalition member (2004, p. 11). The implication is that swing supporters—which includes coalition partners because they can possibly change coalitions—are quite important to the outcome and therefore important in fiscal intergovernmental transfers. Ansolabehere et al. (2005) and Schofield and Laver (1985) find that the benefit of being the prime minister's party is contingent upon the weight of other coalition partners. Put together, this literature suggests that swing supporters are important but the relative importance depends upon the size of coalition partners. Therefore, Rodden and Wilkenson introduce the effect of coalition governments upon electoral landscapes and subsequent incentives faced by the Center party.<sup>4</sup> In coalition governments, coalition partners also become swing supporters. Yet, as the literature review progresses, Rodden and Wilkenson cite Baron and Ferejohn (1989) in which the Center party—the party in charge of forming a coalition—receives the most legislative portfolio share among the total coalition. Even in a coalition the prime minister's party should still be the focus on core versus swing theories. As

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<sup>4</sup>This is an important addition. Coalition governments are popular and therefore need attention in the core versus swing debate. In fact, according to Golder (2005), among 125 nations between 1946 and 2009, the average effective number of political parties in the national legislature is 4.3, which reinforces why accounting for coalition governments is important for theory.

a result, this study remains focused only on the core versus swing debate relative to within the prime minister’s party.

Table 1: Summary for the target of intergovernmental transfers

<b>Type of Central Government</b>	<b>Target of Intergovernmental Transfer</b>
Majority	Core Supporters
Narrow Majority	Swing Supporters
Coalition	Swing Supporters (and coalition partners)

To answer why some states receive more transfers from the central government, this study posits how the type of government causes the prime minister to target either her core or swing supporters. Table 1 summarizes how existing predictions for the debate map to the distribution of intergovernmental transfers and fiscal federalism. Essentially, if the strength of other parties involved in the intergovernmental transfer increases then more emphasis will be placed on the swing supporters in order to ensure retention of those supporters. When the prime minister has a majority, she is free to focus on core supporters in order to maintain her existing majority. In a majority government, there is less incentive to focus on swing supporters because as long as the core continues its support then the government should keep its control. However, as the prime minister’s seat share decreases to a narrow majority, then the prime minister cannot afford to lose key swing supporters if she wants to maintain the majority. As a result, swing supporters receive relatively more transfers. This focus on swing supporters continues as the seat share decreases into a coalition government. In a coalition, the prime minister is careful to maintain as many supporters as possible in the coalition in order to maximize her power within the governing coalition.

This study is not debating between core and swing supporters. This study argues that the effect of being core increases when the prime minister has a majority government, and the effect of being swing increases when the prime minister has a coalition government. Hypotheses suggest an interaction effect between the share of the prime minister’s seats in each state’s delegation and the overall percentage of prime minister’s seat share in the legislature. The effect of being core will be higher if the prime minister has a majority government.

Data analyses should find that both core and swing supporters receive relatively more transfers compared to opposition states. Both underlying formal models of distributive politics are true insofar as prior studies find support for core and swing propositions.<sup>5</sup> Studies look at the share of the prime minister's seat in each state and subsequently test whether states with core and swing attributes receive relatively more transfers. States with a majority of the delegation aligned with the prime minister receive relatively more transfers, and states with a narrow majority of the delegation aligned with the prime minister receive relatively more transfers. Building off these findings, this study argues that the effect of being core increases when the prime minister has a majority government, and the effect of being swing increases when the prime minister has a coalition government. This interaction shows how the type of Center government influences the transfer's target.

*H<sub>1</sub>: The effect of having a state delegation with a majority of seats aligned with the prime minister's party will be higher if the prime minister has a majority government (core hypothesis)*

*H<sub>2</sub>: The effect of having a state delegation with a narrow majority of seats aligned with the prime minister's party will be higher if the prime minister has a coalition government (swing hypothesis)*

## **2.2 Applying the fiscal federalism context**

The difference between the two approaches is important. Intergovernmental transfers differ from typical distributive politics because fiscal federalism involves multiple levels of government. Unlike unitary distributive politics in which transfers go directly to voters, fiscal federalism is a two-level game. This study combines the above hypotheses about the prime minister's type of government with the influence of the second level of government's affiliation. Type of government matters again at the second level because these actors also face electoral incentives and their electoral incentives will differ if the state's leadership is in an opposition party relative to the prime minister.

In fact, the above hypotheses leave out the third prediction from Cox (2010), which is: the less able a party is to deliver credible promises to swing groups, the more it concentrates on its core groups. This suggests that intergovernmental transfers also change relative to perceived credibility of the transfer impact. In the fiscal federalism context, this refers to whether the trans-

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<sup>5</sup>See: Arulampalam et al. (2009); Aytac (2014); Albertus (2012); Brollo and Nannicini (2012); Case (2001); Rao and Singh (2007); Sengupta (2011); Treisman (1996)

fer will actually influence support for the party or just be a waste of electoral resources. At its simplest, regardless of the specific transfer type, the central government can offer wealth to improve voters' economic evaluations. Economic evaluations significantly predict an incumbent's vote share (Lewis-Beck and Stegmaier 2000, 2007). However, if the transfer is not credible then there is likely no perceived economic voting benefit, thereby making the transfer ineffective. To be effective, the prime minister's party need only provide transfer to supporters that will view it as a credible benefit. In this case, credibility is referring to whether the transfer is influenced by the state-level government. According to Albertus (2012), if the benefit is temporary or if it risks being viewed as politically manipulated, there will be no positive effect on the target supporter because the supporter knows it is temporary and not a lasting benefit worthy of support (p. 1085-6). Plus, if the state government distorts the transfer such that voters view the transfer unfavorably then the Center loses any electoral gain. Or, the Center is worried the state government will claim credit for the grant.

Another example for the importance of the second level of government also connects back to the original Dixit and Londregan (1998) model in which "the two parties at the central level can get different responses to their promised transfers, because victory for one party versus the other...will affect the state level redistribution and therefore the ultimate consumption of various groups in the state" (p. 169). In other words, if the prime minister does not anticipate that the regional government will actually implement the transfer then there is little reason to transfer. This justification is more likely under fiscal federalism because the transfers are dependent upon the regional government actually accepting and spending the transfer. Yet, if the regional government is another political party—with a different core constituency—then the grant may not be fully implemented. Put differently, the prime minister creates grants to benefit its supporters, but regional parties may not wish to implement grants for specific voters unless those voters are also supporters of the regional party. As a result, grants may not be the best transfer amid electoral landscapes with coalition partners.

Interestingly, Bonvecchi and Lodola (2010) find that national governments use discretionary and nondiscretionary transfers to account for the second level of the political transfer

game. Discretionary transfers target voters bypassing opposition provincial governors because high discretionary funds require control of its spending whereas nondiscretionary transfers pay off more to co-partisan governors because there is less risk to the partisan implementation. This advances the debate by incorporating federalist context. Volden (2007) creates these expectations in more detail by creating a formal model with four subgame decisions (p. 212). The national government first decides to offer a grant, the national government decides the conditions of the grant, the subnational government decides whether to accept the grant, and the the subnational government implements the grant. These steps underlying intergovernmental transfers illustrate why there is a two-level game between the prime minister and state governments. A key takeaway from Volden is that grants are greater in areas in which there are fewer costs. Costs are higher for opposition parties that may distort grants. Furthermore, it is clear that the Center must anticipate the state government's response to the grant. For example, if the state government can either claim credit or mitigate implementation then the Center cannot count of positive electoral gains from the grant's target.

In particular, Dixit and Londregan (1998) compare unitary against federal systems, which is often neglected when the paper is cited. One contrast is that in federal systems grants often exist in multiple forms, such as fully funded grants versus partially funded grants. Fully funded grants refer to grants in which the transfer has relatively less requirements from the Center whereas partially funded grants require the states to meet various guidelines from the Center. Guidelines include partially funded grants or meeting certain implementation deadlines under threats of penalties. According to Dixit and Londregan, if state-specific politics are salient then partially funded grants become more likely (p. 178). State-specific politics refer to whether there is a difference between state and national governments on partisan affiliation. If the state's leader is aligned with the prime minister then a political congruence exists among issues. If the state and prime minister have the same political party in power then agreement on policy and spending issues is much more likely. There is also no difference in credit claiming because the same party will get credit from voters. If there is nonalignment, then it becomes more likely that political parties will have different voting blocs and different spending preferences. Fully funded grants are much more likely for aligned states, and partially funded grants are much more likely for non-aligned states. Table

2 provides a summary of the exceptions for type of grant and type of state government.

Table 2: Summary of federalist context and fiscal transfers

<b>Type of Affiliation between State and Center</b>	<b>Type of Intergovernmental Transfer</b>
Aligned Majority	Fully Funded Grant
Aligned Coalition	Partially Funded Grant
Unaligned	Partially Funded Grant

These fully funded grants come with less conditions and typically come in lump transfers from the Center. In contrast, coalition governments receive relatively more partially funded grants, which typically come with more rules and/or require matching funds. For example, it may be that partially funded grants refer to when the national government only transfers twenty percent of the necessary funds and requires the state to fund the remaining eighty percent. This gives the national government significant power over the state insofar as impacting the state's budget. States with partially funded grants essentially receive budget demands from the prime minister and adjust accordingly. This gives the prime minister the ability to regulate state funds even if the states are not fully aligned. Partially funded grants are more appropriate for coalition partners because the prime minister is able to guide the state's spending levels such that it promotes the prime minister's government.

*H<sub>3</sub>: A state with a chief minister aligned with the prime minister's party will receive relatively more fully funded grants*

*H<sub>4</sub>: A state with a chief minister not aligned with the prime minister's party will receive relatively more partially funded grants*

### 3 Application

India is an appropriate case because between the 1974 and 2014 there are two significant changes to the electoral landscape. First, there is a decline in the Congress Party, which previously enjoyed majority governments. This leads to a rise in opposition parties, thereby creating coalition governments throughout time. Thus, with data from 1972 to 2008, India experiences at least one of the each form of government, albeit some more than others. Yet, there exists enough variation to illustrate how changes in the type of government over time subsequently changes the target of

politically biased intergovernmental transfers.

### 3.1 Fiscal federalism in India

State governments receive revenue from state tax revenues and transfers from the Center (national government). These transfers from the Center compromise the dependent variable. However, not all of the transfers receive political bias. There are three major types of transfers between the state governments and Center: tax devolution and grants by the Finance Commission, grants by the Planning Commission<sup>6</sup>, and transfers on account of various central plan and centrally sponsored schemes by various central ministries. Only the last category is of interest and comprises the dependent variable.

The constitution of India specifies that states receive a share of the tax revenues collected by the Center, which is determined by the Finance Commissions at periodic intervals. Many argue that the Finance Commission does not receive explicit political bias (Singh and Rao 2006). Similarly, the Planning Commission's transfers *largely* result from a formula decided by the National Development Council, which is chaired by the prime minister and cabinet ministers of the center, chief ministers of the states, and other administrative members of the Planning Commission. As a result, both of these types of transfers do not exist in the measure of politically biased transfers.

Political bias is more likely when central government ministries create national programs for areas such as family planning, health and education needs. Such programs are either Central Plan Schemes and Centrally Sponsored Schemes and these two types of grants are completely discretionary. In other words, these programs are designed by politicians, thereby allowing electoral incentives to influence decisions. Central plan schemes are funded entirely by the Center and Centrally Sponsored Schemes require cost-sharing between the Center and states. For the first part of the analysis, the two are combined, and the two are separated in the second part of the analysis for hypotheses three and four.

A number of studies find evidence for political bias in the grants. For example, Khemani

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<sup>6</sup>The Planning Commission is replaced in 2015 by a new institution. However, the data only include years in which the Planning Commission existed

(2007), Arulampalam et al. (2009), and Singh and Rao (2006) find evidence suggesting political bias in transfers. This study is not competing with such results. Instead, it is testing how the type of government influences the effect size for core and swing states.

### 3.1.1 Empirical analysis

#### 3.1.2 Data

Due to data restrictions, data only cover 16 major states of India from 1974 to 2008. Data for this study come from annual bulletins on state finances published by the Reserve Bank of India. Starting in 1974, transfers from the Center to states are listed by category, thereby allowing the separation of political and non-political transfers. As mentioned, the dependent variable for part one is the total of Central Plan Schemes and Centrally Sponsored Schemes, in constant 2008 US dollars (10,000).<sup>7</sup> For part two of the analysis, the dependent variable is Central Plan Schemes divided by Centrally Sponsored Schemes. According the  $H_3$ , states with a chief minister aligned with the prime minister will have a higher number, i.e., a higher ratio of CPS to CSS. Both dependent variables are logged.

Independent variables come from India's national election commission. Measures of swing and core are needed before looking at the effect of the Center's government. For each Lok Sabha election (the national legislature), states will have a percentage of its delegation aligned with the prime minister's party. Some states are 100 percent while other do not have any aligned representatives. High values on this variable identify core supporters of the prime minister. The measure of swing is the absolute value of the percentage the delegation aligned with the prime minister minus .5. Lower numbers represent narrow elections, which identify swing states. This variable is a variation of constructed variables similar to (Rodden and Wilkinson 2004).

For Part One, the interaction is between the core state variable and the type of national government. For the type of national government, the overall number of the prime minister's party's seats in the Lok Sabha is divided by the total number of seats possible. As this percentage increases, the prime minister has a majority government and when it decreases the government becomes a coalition government for the prime minister. This interacts with the core and swing

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<sup>7</sup>Fortunately, missing years were replaced by data from Arulampalam et al. (2009).



measures described above. This interaction shows how the type of Center government influences the effect of being core and swing. The expected interaction effect is positive with the core measure, thereby indicating that as the the prime minister has a majority the effect of being core increases. The expected interaction is negative with the swing measure, thereby indicating that as the prime minister has a majority the effect of being swing decreases. For Part Two, the variable of interest is whether the the state's chief minister (the state's leader) is from the same political party as the prime minister. The expected sign is positive, thereby indicating that aligned states receive more fully funded grants relative to partially funded grants, i.e., relatively more Central Planned Schemes compared to Centrally Sponsored Schemes.

Controls are currently missing in this draft due to missing data restrictions. Previous studies use literacy rates, rainfall, etc. as controls because grants receive influence for social welfare reasons, in addition to the political bias. Programs are likely influenced by social welfare utility. However, this data is sparse for each state in India, especially for the 1970s and 1980s. Furthermore, a lot of the measures only change every five years and that is less than ideal for the models. Data collection for control variable is still on-going, and missing data procedures are possible to address gaps in observations. This is a topic for exploration before future drafts.

### **3.1.3 Models**

Because of the missing data issues, results are only preliminary. The purpose of demonstrating the analysis is to illustrate how hypotheses will be tested in future drafts. Part one of the analysis ( $H_1$  and  $H_2$ ) has two models. In model 1, the typical equation is presented with core and swing variables. The state is more core as the percentage of seats in its delegation aligned with the prime minister increases. The state is more swing as the percentage of seats in its delegation aligned with the prime minister is closer to fifty percent. The equation of interest, however, is model 2. This equation adds the interaction effects, which test  $H_1$  and  $H_2$ . The prime minister's seat share has an influence on being core and an influence on being swing. Part two of the analysis evaluates  $H_3$  and  $H_4$ . Model 3 looks at the ratio of CSP/CSS grants and whether the state is governed by a chief minister from the same political party as the nation's prime minister.

Table 3: Part One Results: OLS Regressions on State's Share in Grants from Center (N=471)

Variables	Model 1	Model 2
Constant	12.2046***	7.9444***
standard error	.2730	.8173
Core Supporter	-6.3301***	2.1120
standard error	.5956	1.6648
Swing Supporter	3.8715***	-1.8398
standard error	.6052	1.6562
Type of Center Govt.		-17.0590***
standard error		4.0787
Core Supporter * Type of Center Govt.		16.2208**
standard error		8.1376
Swing Supporter * Type of Center Govt.		-12.4559
standard error		8.2223
R-Squared Overall	0.2254	0.5268
state and year fixed effects included		
significance levels: *p<.1; **p<.05; ***p<.01		

Table 4: Part Two Results: OLS Regressions on State's Ratio of CPS and CSS Grants (N=456)

Variables	Model 3
Constant	0.8798***
standard error	.0079
Chief Minister is from Oposition Party	-0.0490***
standard error	.0108
R-Squared Overall	0.0381
state and year fixed effects included	
significance levels: *p<.1; **p<.05; ***p<.01	

### 3.2 Discussion of evidence

Table 3 and Table 4 display crude results. Regressions do not have controls due to missing data issues. Initial results support hypotheses  $H_1$ ,  $H_3$  and  $H_4$ . Model 1 displays the results of the basic model in which both core and swing measures exist. As expected, both coefficients are significant. Interestingly, the sign for the core hypothesis is opposite of prior studies. Previous literature finds that core supporters (% of State Delegation Aligned with PM's Party) have a positive relationship with grants within India (see: Arulampalam et al. (2009) and Rao and Singh (2007)). This might result because of the longer time series within this dataset. Previous studies stop analysis in the early 1990s or separate the time periods of Congress dominance and Congress downfall like (Rodden and Wilkinson 2004). Such studies are only looking at core and swing effects and not looking at the influence of the prime minister's government type. Yet, the political change over time in the Lok Sabha is precisely the focus of this study. When the analysis becomes more robust with controls and better time series components, this finding might change like previous studies. Or, perhaps there is more to be done with identifying the role of core and swing supporters over time in India.

Nevertheless, this study is more interested in understanding the impact of the type of government on core and swing effects. Thus, Model 2 is the model of interest for discussion. Only one of the interaction terms is significant, which corresponds to  $H_1$ . According to the results, the effect of being a core supporter is higher when the prime minister's seat share increases. This means that as the prime minister has a majority government, she focuses more on her core supporters. Unfortunately, the core supporter variable (% of State Delegation Aligned with PM's Party) is not significant in Model 2, which complicates the interpretation. This will be addressed as the data improves in future drafts. Alternative methods of testing the hypotheses could become necessary given that the interaction involves variables at two different levels of analysis.

Conclusions for  $H_3$  and  $H_4$  come from Table 4. This regression shows that states with chief ministers from opposition party's receive less fully fund grants and more matching grants. Such states must contribute more of their funds to complete the grant funding. The prime minister is more likely to give fully funded grants to her political allies. This is an important contribution to fiscal federalism because it identifies how the type of policy instrument matters, in addition to the standard core versus swing bias debate.

## 4 Plan for future drafts

Why do some subnational governments receive more transfers from the central government than others? Within the distributive politics literature, there is a debate over whether the core supporters or swing supporters of the incumbent political party receive more benefits. Previous studies largely focus on the attributes of recipients. In contrast, this study introduces how the type of government predicts whether core versus swing supporters receive relatively more. Core supporters describe states in which the prime minister's party has a majority of seats in the state's legislative delegation. Swing supporters describe states in which the prime minister's party has a narrow lead in the state's legislative delegation.

Using India from 1972 to 2008 as the case study, the effects of being a core supporter increases under a majority government. For example, electoral incentives—the underlying causes of political bias in distributive politics—are different for majority governments versus coalition governments. Majority governments tend to target core supporters relatively more. Furthermore, subnational governments aligned the national incumbent tend to receive more fully funded grants whereas coalition partners and unaligned subnational governments tend to receive more partially funded grants. In subsequent drafts, addressing the missing data issue is the next step in order to finish the data analysis. Also, future drafts will provide examples of grants in order to provide more case-specific context and insights.

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