Political Economy of Fiscal Discipline in Indian States

Priya Kumari
Research Scholar, IIM Indore
Email: - f22priyak@iimidr.ac.in

Abstract: How does political competition affect the budget deficits of the Indian sub-national government? This article examines how coalition politics, party identification, and electoral incentives affected Indian subnational budgetary deficits, using data from 1990–1991 to 2023–2024. This study addresses endogeneity and estimates causal effects using pooled OLS and IV methods on panel data from 31 states and Union Territories (UTs). The results show that politically affiliated federal and sub-national governments experience higher fiscal deficits, i.e., fiscal indiscipline, compared to those that are not aligned. This may be due to a relatively lenient attitude by the federal government toward the fiscal behaviour of the aligned states. The representation of the states in the federal minister's council brings fiscal discipline to the states as it prioritizes long-term expenditure over the short term. Among aligned states, the number of councils of ministers increases, leading to an increase in the fiscal deficit as aligned governments prioritise capital expenditure. Those states in the swing (politically unstable) have a window to increase their deficit as the centre party tries to win the undecided voters by giving soft budget constraints. Further research has shown that the driver of the deficit is in the sub-national government. These findings show that institutional protections are crucial to minimizing politically motivated budget deficits in federal democracies.

Keywords: Fiscal Discipline, Political Economy, Fiscal Federalism

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Introduction

Fiscal discipline signifies a government's dedication to the careful oversight of public finances, ensuring that expenditures are in harmony with revenues while keeping deficits and public debt within sustainable limits. Federations frequently exhibit fiscal indiscipline due to divided control and intergovernmental negotiations between the national and subnational governments concerning the distribution of fiscal resources. This phenomenon is elucidated by the 'common pool' or 'tragedy of the commons' issue, where fiscal indiscipline arises as subnational governments view the funding of their expenditures as stemming from a wider national revenue base, rather than from their individual jurisdictions (Alesina et al., 1999; Baskaran, 2012; Cullis & Jones, 2009; Esteller-Moré et al., 2015; Krogstrup & Wyplosz, 2010; Molina-Parra & Martinez-Lopez, 2016; Persson & Tabellini, 1995). Excessive expenditure, a lack of tax effort (Jia et al., 2021), significant budget deficits, and the accumulation of subnational debt, which could lead to bankruptcy and central government bailouts, are some manifestations of this. This analysis has been framed within the framework of Kornai's (1979; 1986) soft budget constraint hypothesis, which states that the presences of significant vertical fiscal imbalances and dependence of subnational governments on federal transfer can create a soft budget constraint that erodes overall budget discipline and results in excessive borrowing and subnational indebtedness (Jia et al., 2014; Ong, 2011; Jin & Zou, 2002; Rodden, 2003; Stein, 1999; Dahlby, 1996).

Nonetheless, another stream of literature emphasises the crucial influence of political factors in determining fiscal results at the subnational tier. This viewpoint suggests that fiscal deficits arise not only from economic imbalances but are also heavily shaped by political motivations and the framework of institutions (Arulampalam et al., 2009; Khemani, 2007; Shi & Svensson, 2006; Rodden, 2005; Perotti & Kontopoulos, 2002; Rogoff & Sibert, 1988; Nordhaus, 1975; Roubini &

Sachs, 1989). The political conflicts of interest can incentivise current politicians to incur deficits, such as garnering political backing and securing elections. Initial theoretical insights into this perspective were offered by Roubini and Sachs (1989a, b), who moved away from the equilibrium framework regarding budget deficits advocated by Barro (1979) and Aschauer (1988). They illustrated that variations in political processes were responsible for the differing trends in budget deficits across OECD nations from 1960 to 1985. In particular, policymakers, whether political parties or individual politicians, often act with strategic motives. They might pursue partisan goals meant to further the interests of their core support groups (Arulampalam et al., 2009) or embrace opportunistic policies to increase their prospects of reelection (Eslava, 2011; Arulampalam et al., 2009). This bargaining over common-pool budgetary resources often leads to fiscal fragmentation, driven by the competing interests of multiple actors involved in the budgetary process seeking to maximise their share. This phenomenon is analysed in models developed by Velasco (2000), Von Hagen and Harden (1995), and Krogstrup and Wyplosz (2010), which highlight how institutional structures and collective decision-making bodies can exacerbate fiscal indiscipline.

Specifically, we examine the hypothesis that political considerations influence the budget deficit of subnational governments in India. Our analysis explicitly accounts for the fact that different political parties may control the government at different levels. The central government may accommodate higher fiscal deficits by allowing state governments to increase expenditures. Which level of government is responsible for increased spending, and how it is financed, may confuse state voters. This ambiguity can work to the advantage of state governments, as they may reap the political benefits of increased public spending while shifting the macroeconomic consequences of higher fiscal deficits to the central government (Arulampalam et al., 2009). As a result, higher expenditures may enhance their electoral prospects, allowing them to strengthen their position and improve their chances of reelection.

Budgetary policies tend to lose their effectiveness in environments where political power is divided across various branches of government, among coalition partners, or due to frequent leadership changes. This fragmentation leads to diminished coordination and accountability, frequently causing weaker fiscal discipline, increased deficits, and inefficient budget results (Eslava, 2011). This situation further reinforces the need to examine the role of political institutions in shaping fiscal discipline across different subnational economies within one large developing country.

Along with the partisanship theory of policymaking put forward by researchers like Alesina, Havrilesky, Sachs and Tabellini (1989), the study of budgeting through the lens of public choice theory, which scholars like James Buchanan started, shows how important political conflict is in shaping fiscal decisions. These theoretical approaches acknowledge that political dynamics are central to understanding how budgets are formulated and managed. However, they often overlook the importance of other political factors that mediate the relationship between political conflict and the resulting budgetary outcomes.

This paper looks at a critical part of macroeconomic policy: dealing with fiscal and primary deficits. This research focuses on the factors positively or negatively influencing the relationship between political conflict and the resulting budgetary outcomes. With many economies experiencing persistently high deficits recently, leading to a significant rise in public debt, understanding these imbalances' economic and political drivers is essential. In this context, we observe increased fiscal deficits across state economies over the past 33 years. This phenomenon underscores the need for a more profound analysis of the underlying factors. The main point of our study is to show that these political factors can help explain why budget deficit patterns are so different across states, even though the political systems in these states are mostly the same.

The Indian states are a place to study the political factors that affect budget deficits in developing countries because they have a history of democratic elections, and there is a lot of variation in political and economic variables at the subnational level. Our study analyses a panel of 31 states and UTs spanning from 1990-91 to 2023-24. The empirical method employs pooled OLS, incorporating state and year-fixed effects and a robust standard deviation to account for unobserved heterogeneity. Furthermore, we use instrumental variables to address endogeneity, ensuring the results' reliability; hence, pooled OLS is best suited to analyze. The objective is to ascertain the extent to which political factors influence India's state-level budget deficits.

The empirical analysis demonstrates a strong correlation between political factors and fiscal results across Indian states. The statistics indicate that states aligned with the centre, whether governed by the same political party or in coalition with it, experience higher fiscal deficits compared to those that are not aligned. The representation of the state in the ruling coalition through members of parliament (MPs) in the federal legislature does not show any impact on the fiscal deficit; however, the presence of representatives from the state in the federal executive (council of ministers) appears to reduce the fiscal deficit and promote fiscal discipline. The fluctuating swing state, indicative of heightened electoral rivalry, is consistently associated with rising fiscal deficits. Expenditure serves as the primary catalyst for the fiscal deficit, particularly capital expenditure, whereas the influence of political factors on the state's own revenue efforts remains limited. However, for the aligned states, a greater number of Council of Ministers contributes to a rise in the deficit driven by an increase in capital expenditures, while also resulting in reduced interest payments. All the models check both fiscal deficits and primary deficits to ensure robustness.

The rest of the paper is organised as follows. Section 2 covers the theoretical framework and Institutional details. Section 4 discusses the empirical Model and variables. Section 4 describes the empirical technique and evidence used to determine how political variables affect state deficits. The conclusion and interpretations are discussed in Session 6.

Theoretical Framework

What are the reasons behind government deficits? Economics textbooks conventionally explain that fiscal deficits arise from the government's efforts to smooth consumption (Barro, 1979). For example, in a framework where the government aims to maintain a steady flow of spending and stable tax rates (to assist consumers in managing their consumption), deficits will emerge during economic downturns, resulting from a decline in tax revenues or an increase in government spending (Woo, 2003). Within the framework of India's federal system, it is the constitutional duty of state governments to deliver the majority of local public goods and services. Nonetheless, a notable vertical fiscal imbalance is present, given that the revenue-generating capabilities of the states are comparatively constrained compared to their large spending responsibilities. Taxes that generate significant revenue, like income tax and customs duties, are designated for the central government, whereas states primarily depend on more limited tax bases. Even though they represent about 50 to 60 per cent of overall public spending, state governments generate only about 30 per cent of total revenues (Rao & Singh, 2005). The theoretical implications of fiscal deficits suggest that a significant fiscal deficit could indicate an expansionary fiscal policy. However, it may also lead to inflation, rising interest rates, and an increased debt burden. On the other hand, a significant primary deficit indicates that the government is persistently unable to meet its ends, even when debt servicing is not taken into account, highlighting a fundamental fiscal imbalance. A central proposition is that deficits adjust to keep tax rates stable, leading to increased borrowing during temporary spending surges (e.g., wartime), countercyclical debt responses to income fluctuations, and a correlation between expected inflation and nominal debt growth (Barro, 1979). This tendency has resulted in sustained fiscal deficits, which are increasingly driving the rapid accumulation of public debt, particularly in low- and middle-income countries (World Bank & IMF, 2018). Nevertheless, empirical evidence also shows that governments accumulate debt levels that exceed what is considered optimal under consumption-smoothing frameworks (Alesina & Perotti, 1995). The field has, therefore, sought further potential explanations for fiscal deficits, particularly the impact of economic and political factors on the formulation of fiscal policy.

Fiscal deficits are shaped by various macroeconomic factors. The existing literature demonstrates that excessively high fiscal deficits correlate with macroeconomic instability, resulting from undesirable consequences for on various macroeconomic variables such as interest rates (Laubach, 2009), current account balances (Sobrino, 2013; Abbas et al., 2011), investment (Arora & Dua, 1993), inflation (Catão & Terrones, 2005; Lin & Chu, 2013), exchange rates (Kim & Roubini, 2008), debt (Maltritz & Wüste, 2015), and economic growth (Adam & Bevan, 2005). External debt and money supply generally lead to a decrease in fiscal deficits, while exchange rate depreciation and inflation exert an expansionary influence (Okoye, 2019). While these determinants operate primarily at the national level, certain subnational factors also affect fiscal deficits. Deficits are influenced by per capita income and population growth (Abanikanda et al., 2023). Increasing deficits are associated with elevated public spending and declining revenues, suggesting issues in fiscal management (Wai, 2006). Furthermore, the growth rate of real GDP shows a negative correlation with fiscal deficits, highlighting the stabilising influence of economic expansion (Petrakos et al., 2023).

Fiscal deficits continue to be a significant macroeconomic issue for Indian states, impacting long-term growth, debt sustainability, and the dynamics of fiscal federalism; however, the influence of political factors is equally important yet frequently overlooked in the subnational context. The contributions on political economy that were developed in the 1980s and early 1990s were meticulously summarized in a series of previous papers and surveys (Alesina & Perotti, 1995; Drazen, 2000b; Persson & Tabellini, 2002; Roubini & Sachs, 1989a, b; Aschauer, 1988; Alesina & Tabellini, 1990a; Nordhaus, 1975; Persson & Svensson, 1989; Weingast et al., 1981; Baron & Ferejohn, 1989), alongside more recent literature (Eslava, 2011; Blais et al., 2010; Artés & Jurado, 2018). Research shows that politicians often change fiscal policy to improve their chances in elections. Such behaviour leads to election-related budget increases, coalition spending pressures, and swing state effects on fiscal decisions (Arulampalam et al., 2009). In the Indian context, a substantial body of political science literature examines party competition in India (Brass, 1990; Yadav, 1996; Rudolph & Rudolph, 1987). Drawing on data from 1972 to 1998, Khemani (2007) illustrates that in India, state governments that are aligned with the national ruling party typically experience higher deficits, whereas those led by opposing parties show lower deficits. Khemani (2007) and Arulampalam et al (2009) observe that central governments prioritise politically aligned states regarding fiscal transfers. The expectation of heightened electoral competition, characterised by a greater number of candidates, appears to limit the incumbent government's tendency towards excessive spending (Ferris & Dash, 2023). In the federal framework of India, the interplay between subnational government deficit, expenditure and central transfers plays a crucial role, with the political alignment between subnational government and central administrations having a notable impact on fiscal discipline. This study explores the impact of a national political party on budgetary discipline in states led by that party, as well as the ways in which national coalition dynamics shape the ability of these states to advocate for increased budget deficits. If these claims are accurate, they would bolster the notion that significant national parties leverage political alignment to advocate for fiscal discipline in federations. Previous studies suggest that the federal government might mitigate fiscal indiscipline and deficits in aligned states through the use of internal party disciplinary mechanisms (Jones et al., 2000; Dillinger & Webb, 1999; Rodden & Wibbels, 2002). Nonetheless, empirical findings from India indicate a varied trend, implying that political alignment does not uniformly result in enhanced fiscal discipline at the state level.

This article evaluates the contrasting theories regarding the impact of multiparty political competition within a federation on fiscal discipline, examining whether it hinders or promotes such discipline. The discussion leads to the following inquiries: If a regime at the federal level comprises a coalition of political parties, do the states governed by the coalition partners negotiate for a higher deficit, or does the main party take on a larger deficit? Similarly, the conflicts of interest stemming from the partisan preferences of politicians create incentives for specific incumbents to engage in deficit spending (Eslava, 2011). A considerable amount of literature underscores the political importance of organised interest groups, which can influence politicians in support of their desired policies (Olson, 1965; Buchanan & Tullock, 1962). The influence of power is confined to individuals within the governing party. In our empirical work, we focus on the potential effects of lobbying by members of parliament, which raises another question: do political executive members negotiate regarding the fiscal deficit? The responsibility of maintaining the overall fiscal stability is usually shouldered by the national political executive rather than subnational governments (Balanchard & Shleifer, 2001; Stepan, 2000; Treisman, 2000). To address this, we have appointed a member of parliament, and consequently, the Council of Ministers is established. This council of ministers is also divided into two parts: Cabinet Ministers and Ministers of State (MOS). Another political variable is a swing state, indicating that one of the parties lacks a dedicated base of supporters that encompasses more than half of the electorate. Whether the states that experience political instability or are considered swing states have any influence when it comes to negotiating a larger deficit. The central ruling party will prioritise grants for states that are aligned as swing states, as illustrated by the findings of Arulampalam et al (2009). Whether a similar flexibility is provided to the aligned or swing states in matters of fiscal discipline. This study further investigates the factors contributing to the fiscal deficit, specifically focusing on revenue versus expenditure. The concept of the political budget cycle suggests that governments often adopt expansionary fiscal measures prior to elections to improve their prospects for electoral victory (Rogoff, 1990; Shi & Svensson, 2006). Earlier research regarding the influence of political elements on fiscal deficits illustrates the ways in which policymakers may adjust government expenditure in an effort to secure re-election (for instance, Nordhaus, 1975; Buchanan & Wagner, 1977). It is crucial to note that voters acknowledge the significance of public spending, particularly its positive macroeconomic effects. However, they frequently underestimate its costs related to future tax responsibilities, inflation, and general economic performance.

In India's federal framework, political alignment, electoral timing, and institutional representation affect subnational fiscal behaviour. In this institutional system, where subnational governments receive centrally allotted transfers and grants, close political ties to the centre are advantageous. The results corroborate theoretical expectations that states with total alignment will have bigger fiscal deficits. The findings support political budget cycle theories and highlight the role of institutional architecture and intergovernmental dynamics in state fiscal decisions.

Institutional Details

India adopted its constitution in 1950, granting individuals the right to directly elect members of the lower house, known as the Lok Sabha. The entire nation is segmented into 543 constituencies for the national assembly. Telangana emerged from Andhra Pradesh in 2014, driven by enduring calls for regional autonomy, fair economic growth, and unique cultural representation, but the number of constituencies remains the same.

The party that secures the most seats across the states will form the government, led by the Prime Minister and a cabinet of ministers. From 1990 to 2023, the predominant government structure during this period has been a coalition government, established with the assistance of other parties. Indian politics saw a dramatic shift toward coalition politics from 1990 to 2023, which was followed by a slow return to single-party rule within coalition structures. In order to preserve parliamentary stability, the Indian National Congress (INC) operated as a minority government from 1991 to 1996, depending on outside assistance. Political instability characterised the following years, 1996–1998. The Bharatiya Janata Party (BJP) and the United Front formed brief coalitions, but neither could hold onto power for an entire term. The National Democratic Alliance (NDA), led by the Bharatiya Janata Party (BJP), established a stable coalition government under Atal Bihari Vajpayee, stabilising the political environment between 1999 and 2004. Following this phase, there was a decade of stable coalition governments with Manmohan Singh as prime minister, led by the INC under the United Progressive Alliance (UPA) from 2004 to 2014. However, with the BJP-led NDA winning an outright majority in 2014 and 2019 under Narendra Modi, Indian politics saw a return to single-party dominance within a coalition framework starting in 2014. This reduced reliance on alliance partners while preserving the coalition structure. This trajectory highlights how India's parliamentary democracy changed over the 1990s, moving from unstable coalitions to a hybrid model of majority rule and surplus coalition politics in the following decades.

After the economic liberalisation that began in 1991, there were significant changes in fiscal dynamics at the state level in India. The liberalisation reforms of 1991 had substantially changed the political economy of federalism in India by weakening the economic powers of the centre and increasing interjurisdictional competition among the states (Rudolph & Rudolph, 2001; Saez, 2002; Sinha, 2004). Liberalisation increases the competition between the state and private sectors and decreases central control over industrial policy (Sinha, 2004). From 1990–91 to 1993–94, there was a noticeable decrease in state revenues and fiscal deficits. Nonetheless, this pattern shifted in the late 1990s, especially between 1997–98 and 1999–00, as fiscal deficits almost doubled. The decline can be primarily linked to adopting the Fifth Pay Commission recommendations, resulting in a notable increase in salary-related costs (EPWRF India, 2006). A decrease in central tax revenues throughout this timeframe led to diminished fiscal allocations to the states. Nonetheless, state governments maintained high expenditure levels without sufficient efforts to increase their revenue sources. As a result, the proportion of the states in the overall government deficit saw a significant increase, climbing from 35% in 1992 to almost 50% by 1999 (International Monetary Fund [IMF], 2013). In light of the increasing fiscal challenges, the Government of India enacted the Fiscal Responsibility and Budget Management Act (FRBMA) in 2003, intending to establish fiscal discipline at the central level while states adopt FRL (Fiscal Responsibility Legislation) to curb the fiscal deficit. State governments in India mainly address their fiscal deficits by borrowing money from the market, banks, and the central government. They borrow money from non-market sources, such as modest savings and provident funds. The primary source is market borrowings, especially State Development Loans (SDLs), which the Reserve

Bank of India (RBI) gets for the states by holding auctions. As per Article 293(3) of the Constitution, the borrowings in question must follow the budgetary restrictions imposed by the Finance Commission and approved by the Central Government. States also get money from banks like the National Bank for Agriculture and Rural Development (NABARD), the Housing and Urban Development Corporation (HUDCO), and the Power Finance Corporation (PFC) for infrastructure and specific development projects. In addition, loans from the Central Government, which used to make up a large part of state finance, have been cut back a lot because of the 12th Finance Commission's (2005) suggestions. Direct loans from the Centre are rare and mostly only available for centrally sponsored initiatives or projects funded by outside sources that the Union government runs. Also, non-market loans like collections from small savings plans and governmental provident funds are steady and fairly predictable ways to get money. States are acknowledged for off-budget borrowing via state-owned public enterprises, although the responsibility of the loan ultimately rests with the state (Anand et al., 2004; McCarten, 2003).

Empirical Model and variable

As previously mentioned, there is significant temporal variance in the political ties and budgetary performance of Indian states concerning the federal government. The research on political bargaining between different levels of government raises important questions about whether these two processes are structurally related. The analysis utilises a thorough and current dataset from 1990 to 2023. To ensure robustness, the analysis includes fiscal and primary deficits as dependent variables. The primary deficit, the fiscal deficit minus interest payments on existing debt, provides a clearer picture of the government's current borrowing needs by eliminating the impact of previous debt servicing obligations. This study offers a detailed analysis of the factors influencing fiscal behaviour within the Indian federal framework by utilising fiscal and primary deficits. To answer this query, we estimate the following model:

$$Deficit_{it}/GSDP_{it} = \beta_0 + \beta_1\ Alignment_{it} + \beta_2 MP_{it} + \beta_3 Total\ Council\ Minister_{it}$$

$$+ \beta_4\ Swing\ State_{it} + \eta Z_{it} + \alpha_i + \delta_t + \mathcal{E}_{it} \quad (1)$$

In this model, $Deficit_{it}/GSDP_{it}$ is the fiscal deficit in state i in year t, expressed as a percentage of the state's domestic product (GDP). Economic (state own tax revenue, total grants, Fiscal dependency, Lagged debt) and demographic (Population weightage, SC & ST Population, Head Count Poverty, Ratio, Agriculture_GSDP, Inflation, Real growth rate, Rural proportion of total Population and minor state) characteristics of states are included in Z_{it}. State fixed effect(α_i) and year fixed effect(δ_t) are included. $\mathcal{E}_{it}$ captures the unobserved error in the model.

The political variable consists of Total Alignment (binary variable) which is further broken down into two parts: main party alignment which takes the value of 1 if the same party is ruling state as the centre ruling party otherwise zero and Align party which takes the value of 1 if the party ruling the state are in coalition with the centre ruling party otherwise 0. It is expected that the same party ruling in the centre and state may try to bring a lower fiscal deficit in the state to have fiscal discipline. If the deficit is higher, it shows that political distortion occurs, as there is no incentive for fiscal discipline. The aligned state, which is in coalition with the centre, has an incentive to fiscal indiscipline as it tries to bargain for more resources. Overall, an aligned state can have a weak incentive for fiscal discipline. Research also indicates that aligned provincial governors exhibit reduced expenditure compared to provinces not aligned with the president's party (Jones et al., 2000).

Irrespective of party alignment between the centre and state, one strand related to fiscal deficit results from a conflict of interest among groups over resources. In this context, distributional conflicts can lead to fiscal repercussions, potentially causing budget deficits, as illustrated in the foundational studies by Weingast et al. (1981) and Baron and Ferejohn (1989). Another political variable consists of an interest group known as the political executive, i.e. MP (Member of Parliament). However, it is incomplete as the Council of Ministers plays an important role in bargaining over resources. For robustness, the Council of Ministers is broken down into two parts: the Cabinet ministers and the Minister of State (MOS). Negotiating shared budgetary resources frequently leads to fragmentation, stemming from the multitude of self-interested groups involved in the budgeting process. Recent elaborations on these models have been provided by various scholars, including Velasco (2000), Von Hagen and Harden (1995), and Krogstrup and Wyplosz (2010). Suppose there is a strong representation of the state in the national parliament. In that case, they are better positioned to lobby for greater resource transfers to the state and greater expenditure. Suppose the greater representation comes from the central party-aligned state. In that case, they try to bring fiscal discipline to maintain macroeconomic stability. At the same time, if this strong representation comes from the aligned state where a different party's chief minister is ruling, they have an incentive for fiscal indiscipline as more and more resources are transferred to the state.

The final aspect of fiscal deficit is that if the state is politically unstable, any party can win the state in the next election. If the state is in swing, it is incentivised to have a higher deficit, as they do not need to comply with fiscal discipline. Arulampalam et al. (2009) state that aligned swing states get more grants than those that are unaligned but not swing. The nature of impact, whether positive or negative, is a complex question.

Equation 1 illustrates the influence of political dynamics on deficits. If party politics plays a significant role in shaping deficits, what are the specific mechanisms through which increased spending, reduced revenue, or grants manifest their effects? To comprehend the relationship between political variables and deficits, it is essential to determine whether the observed higher (or lower) deficit arises from decreased (or increased) revenue, elevated (or diminished) expenditure, or enhanced negotiations for federal transfers. We explore this by running a separate regression using state-owned tax revenue, total grants, total expenditure, revenue, and capital expenditure as dependent variables. Additionally, we examine the political variable concerning interest payments to assess whether lower interest payments partially support states with elevated deficits and spending.

Results

To investigate this link, we used a pooled Ordinary Least Squares (OLS) estimation with state fixed effects (α_i) to account for unobserved heterogeneity across states and temporal fixed effects (δ_t) to adjust for year-specific economic shocks. A set of economic control variables was also incorporated into the regression to account for the economic diversity of particular states. We used an instrumental variable (Lag of the variable as IV) strategy to address any worries of endogeneity. Diagnostic tests, however, showed that the model had no discernible endogeneity. The pooled OLS estimation is considered the best technique for examining the outcomes. Table 1 provides summary statistics for each variable included in the analysis.

Table 1 here

Table 2 displays the regression estimates assessing the influence of political variables on the fiscal deficit-to-GSDP ratio of Indian states. Model 2 of Table 2 reports the regression result using OLS with robust standard errors. The coefficients show that when states are aligned with the centre, either ruled by the same political party or in coalition with the centre, they have higher fiscal deficits than those not. The representation of members of parliament does not bring any significant results in fiscal deficit; the representation of the council of ministers brings down the fiscal deficit and, hence, fiscal discipline, indicating that increased ministerial representation at the centre could correlate with fiscal restraint over time. The variable swing state, which reflects increased electoral competitiveness, is regularly linked to elevated fiscal deficits. The coefficient demonstrates a positive and statistically significant result in all specifications, with values of 0.437 ($p < 0.05$) in the second model. Swing states do not comply with fiscal discipline; hence, the coefficient shows they have higher deficits than non-swing states. For robustness, Model 3 of the Table reports the result of the panel fixed effect, with the year fixed effect showing the same result. Model 4 uses the lag of the political variable as an Instrumental variable and hence runs the second stage of least squares regression and shows the same result. This finding lends credence to the hypothesis that coalition politics could play a moderating role in subnational fiscal behaviour, potentially stemming from inter-party bargains that reduce the fiscal restraints on the states. The coefficients related to electoral timing variables offer additional insights into the impact of political factors on fiscal results. The upcoming Lok Sabha Elections are linked to notably reduced fiscal deficits in all models (e.g., -3.171, $p < 0.01$ in Model 2), which may indicate that the state governments do not wish to use their fiscal space for the benefit of the party ruling at the Centre. On the other hand, state elections show a positive and significant correlation with larger fiscal deficits (e.g., 0.394, $p < 0.05$ in Model 4), aligning with theories of political budget cycles at the subnational level. The primary deficit excludes debt interest payments, whereas the fiscal deficit encompasses them. Therefore, the fiscal deficit indicates the government's borrowing requirements, while the primary deficit reflects its present fiscal status. A positive primary deficit indicates that borrowing is utilised for increased expenditure rather than solely for managing existing debt (Annexure, Table 1). The data in both tables (Table list,2 & Annexure, Table 1) indicate a positive correlation between political alignment with the central government and increased deficits. This implies that politically aligned states are more inclined to pursue fiscal expansion.

We performed several tests to ensure that the estimated impact of party alignment is not driven by other political effects that correlate with the party alignment indicators. One of the most important ones is to add the vote share of the Main party and the aligned party of the national election in the model to decrease the correlation of other political effects on fiscal deficit. Across our time frame, the Indian National Congress and the National Democratic Alliance have ruled the national legislature with the help of an allied party. Another political variable that gets much attention is the election cycle (Khemani, 2004), which we have added both national and state elections to all the models.

Table 2 here

Table 3 reports the results of the OLS regression for states' revenue and expenditure components to find which one is a driver of the fiscal deficit. There is no significant effect of the political variables on their revenue generation except total alignment, which shows that states increase the tax effort if they are aligned with the centre strictly or in coalition with the centre (Model 1). The total grants given by the central ministries, the planning commission, and the finance commission do not have any significant political effect other than those of the Members of Parliament, meaning they bring grants to the state, as shown in Model 2. Spending by the state government associated with the national ruling party is higher than that of the non-aligned states. Model 3 shows that the swing state has greater spending than the non-swing state as political parties try to sway the voters through more revenue expenditure. Statistically, political entity alignment with the central government increases capital expenditure. Capital expenditure shows the same sign as the fiscal deficit, which means capital expenditure is a driver of the fiscal deficit. The significant effect on capital expenditure suggests that alignment may prefer long-term investments over short-term expenditures. The involvement of the ruling party MPs in a state increases capital investment. For instance, a one-unit increase in MP presence increases capital outlay by 0.157 percentage points (Model IV, Table 3), both of which are significant at the 10% level. Such an increase may suggest a desire to invest in community development projects, especially those that align with central leadership. The number of state council ministers reduces capital expenditures, suggesting fiscal discipline. Revenue and capital expenditures rise in electorally competitive states. At 5–10% thresholds, governments increase expenditures in politically difficult regions, likely as election tactics. Political instability promotes fiscal expansion, with overall spending affected most (0.661 percentage points in Model 5). The Lok Sabha elections increase revenue and decrease capital expenditure, but state elections do not significantly impact spending. These impacts show that federal and subnational electoral incentives differ. The control variables work as expected. Grants, transfers, and increased tax revenue boost expenditures dramatically. Transfers have considerable effects across models, emphasising intergovernmental fiscal connections.

Table 3 here

Table 4 shows the interaction of the political variable on the fiscal deficit. In the aligned states, those with a greater share of seats in the national legislature generally exhibit notably lower deficits than those with a smaller share of seats. The overall advantages of alignment can be favourable, as the coefficient for alignment exceeds that of the interaction term. The engagement between the Member of Parliament and the Main Party context yields no notable outcome. In the aligned party state, regions where the party holds a greater share of seats in the national legislature generally exhibit markedly lower deficits than regions with fewer seats. The situation regarding the council of ministers contrasts sharply with that of the aligned states; jurisdictions where the party holds a greater share of seats in the national legislature generally experience larger deficits compared to those with a lesser share of seats. The interaction model is also applied to the primary deficit model (Annexure, Table 2) to ensure reliability and receive the same response. The identical model is applied to the state's own revenue, overall expenditure, and capital expenditure to identify the factors contributing to the deficit. The same pattern of political impact on capital expenditure (Table 5) is obtained as on overall deficits. The correlation between capital expenditure and the deficit indicates that capital expenditure is the primary factor in this relationship. Table 6 shows how the centre can finance the state's deficit. The centre does not systematically use grants and loans to finance the deficit. In the case of an aligned state, Interest payments are lower when there is an increase in the council of ministers. Overall, it suggests that the centre does not systematically use any one financing instrument to finance state deficits but rather a combination of the various instruments available to it, as discussed earlier.

Table 4 and Table 5 here

Conclusion

This study examines the political drivers of fiscal deficits in Indian states using aggregated Ordinary Least Squares (OLS) and Instrumental Variable (IV) estimations to address endogeneity concerns. The findings reveal that political alignment between state and central governments significantly increases both fiscal and primary deficits. This supports the literature, which argues that aligned state governments may expect greater fiscal support or policy leniency from the Centre, encouraging expansionary fiscal behaviour (Rao & Singh, 2005; Rodden, 2006). Deficits are also positively linked to the presence of electorally volatile swing states, consistent with political budget cycle theories (Rogoff & Sibert, 1988; Shi & Svensson, 2006).

The outcome indicates that states governed by the central ruling party or in coalition exhibit limited motivation for maintaining fiscal discipline. When analysing this variable (Alignment) by dividing it into two groups, A) the Main party and the Align party state, the central party ruling state exhibits a positive fiscal deficit, indicating weak incentives for fiscal discipline. This pattern of evidence shows that giving the national political executive control over a state's deficit does not stop the central ruling party from having deficits and looking for extra money through grants, budget allocations, and low-interest loans. The council of ministers addressed lowering the interest payment among the centre-ruled states, whereas loans and grants appeared insignificant. The national political parties exhibit limited motivation for maintaining fiscal discipline. The primary outcome is in the aligned state, where the MP mitigates the deficit by providing grants to the states. Concurrently, the Council of Ministers raises the deficit by augmenting capital expenditure, aiming for voters to recall their capital investments in the future instead of focusing on short-term expenditures, and reducing interest payments.
The centre acts as an opportunistic administration, funding the deficit throughout the state for political aims or leveraging the central party leadership through their actions. The appropriateness of this matter is likely contingent upon the degree of internal party discipline or the influence that national party leaders exert over state leaders. In the context of a coalition government, the power

dynamics within the influential state government are closely tied to the central authority. This alignment often leads to an overspending tendency, driven by the anticipation of increased grants from the centre, or the potential to negotiate for a position in the national cabinet or favourable interest rates. A crisis within the aligned state undermines the reputation of the central political party. Therefore, it incurs a comparatively higher expense, prompting them to secure funding to eliminate this issue. The ruling party at the centre has no motivation to support the opposition, as voters are likely to hold the opposition accountable for their financial mismanagement. The central government incurs reduced expenditures in the state governed by the opposition party. The timing of elections further shapes fiscal outcomes. State elections coincide with higher deficits in a few models, whereas national (Lok Sabha) elections correlate with deficit reductions. These patterns underscore how electoral incentives influence subnational fiscal behaviour (Khemani, 2004; Brender & Drazen, 2005). Notably, political alignment has a more substantial positive effect on capital expenditures than revenue expenditures, reflecting a preference for long-term, electorally visible spending over short-term investments.

Table List

Table 1(Descriptive Statistics)

Variable	Obs	Mean	Std. Dev.	Min	Max
FD GSDP	959	3.747	2.795	-4.246	19.674
Total Alignment	959	.521	.5	0	1
Main Party	959	.39	.488	0	1
Align Party	959	.131	.338	0	1
MP	959	1.327	1.37	0	8.373
Total Council Minister	959	1.443	2.169	0	21.025
Cabinet minister	959	.932	1.501	0	11.632
MOS	959	1.712	3.561	0	48.358
Centre Party Vote share	959	.312	.186	0	.828
Coalition Party Vote share	959	.079	.142	0	.688
Swing State	947	.374	.484	0	1
Lok Sabha Election	959	.229	.420	0	1
State Election	959	.207	.405	0	1
NDA	959	.470	.499	0	1

Table 2

Table 2: Regression Results of Fiscal Deficit on Political Variables

Variables	(1) *OLS*	(2) *OLS*	(3) *Panel Fixed Effect*	(4) *2SLS*
Total Alignment	0.574***	0.680***	0.680***	0.752**
	(0.197)	(0.199)	(0.177)	(0.311)
MP	-0.0340	-0.0428	-0.0428	-0.0432
	(0.120)	(0.116)	(0.113)	(0.180)
Total Council Minister	-0.183***	-0.189***	-0.189***	-0.187
	(0.057)	(0.057)	(0.051)	(0.130)
Swing State	0.228	0.437**	0.437	0.655***
	(0.188)	(0.184)	(0.306)	(0.216)
NDA	-2.897***	-2.634**	-2.683	-1.998*
	(.692)	(1.124)	(1.667)	(1.066)
F Lok Sabha Election	1.160	-3.171***	-3.171**	-3.309***
	(1.537)	(1.044)	(1.545)	(1.013)
F State Election	0.380	0.402*	0.402	0.394**
	(0.210)	(0.196)	(0.250)	(0.188)
Constant	4.267***	21.74***	18.76**	22.75***
	(0.418)	(4.218)	(7.030)	(4.020)
Observations	917	875	875	844
R-squared	0.360	0.492	0.346	0.492
Control	No	Yes	Yes	Yes
State FE	Yes	Yes		Yes
Years FE	Yes	Yes	Yes	Yes
Number of st_code			34	

***Note**: For model 4, t-1 values of the independent variable are used as IV in the regression; Robust standard errors in parentheses*

Table 3 Regression Result of Revenue, Grant, and Expenditure on Political Variable

Variables	State own Tax Revenue	Total Grant	Revenue Expenditure	Capital Expenditure	Total Expenditure
	OLS	OLS	*OLS*	*OLS*	*OLS*
Total Alignment	0.080*	0.372	-0.429	0.112*	-0.318
	(0.046)	(0.242)	(0.624)	(0.122)	(0.597)
MP	0.057	0.332**	0.151	0.157*	0.308
	(0.035)	(0.166)	(0.613)	(0.084)	(0.591)
Total Council Minister	-0.011	0.014	-0.057	-0.138***	-0.195
	(0.013)	(0.131)	(0.199)	(0.039)	(0.199)
Swing State	-0.002	0.240	0.576*	0.086	0.661*
	(0.038)	(0.206)	(0.340)	(0.106)	(0.349)
NDA	.578**	-5.614***	7.754**	-1.218*	6.535*
	(.229)	(1.538)	(3.953)	(0.698)	(3.752)
Constant	15.075***	16.815***	31.444*	0.407	31.851*
	(0.892)	(5.880)	(17.571)	(3.243)	(16.926)
Observations	875	875	875	875	875
Adjusted R-squared	0.926	0.941	0.836	0.900	0.886
state FE	Yes	Yes	Yes	Yes	Yes
Years FE	Yes	Yes	Yes	Yes	Yes

Table 4

Table 4:Interaction Effects of Political Variables on Fiscal Deficit

Variables	Total Alignment	Main Party	Align Party
	OLS	*OLS*	*OLS*
Total Alignment*MP	-0.450**		
	(0.199)		
Total Alignment * Total Council Minister	0.070		
	(0.117)		
Total Alignment*Swing State	-0.439		
	(0.319)		
Main Party* MP		0.002	
		(0.201)	
Main Party* Total Council Minister		-0.098	
		(0.121)	
Main Party*Swing State		-0.529	
		(0.334)	
Align Party*MP			-0.636***
			(0.228)
Align Party*Total Council Minister			0.474**
			(0.192)
Align Party* Swing State			-0.438
			(0.471)
Constant	19.245***	19.446***	16.829***
	(3.665)	(3.643)	(3.617)
Observations	875	875	875
Adjusted R-squared	0.441	0.442	0.435
Control	Yes	Yes	Yes
State FE	Yes	Yes	Yes
Years FE	Yes	Yes	Yes

Table 5: Regression of Interaction Variable on Own Tax Revenue and Capital Expenditure

	State's Own Tax Revenue^			Capital Expenditure^		
VARIABLES	OLS	OLS	OLS	OLS	OLS	OLS
Total Alignment*MP	0.110**			0.280**		
	(0.053)			(0.139)		
Total Alignment * Total Council Minister	-0.032			0.141		
	(0.037)			(0.099)		
Total Alignment * Swing State	0.090			-0.328*		
	(0.078)			(0.188)		
MainParty * MP		-0.083			0.489***	
		(0.057)			(0.134)	
Main Party* Total Council Minister		0.049*			-0.056	
		(0.029)			(0.089)	
Main Party*swing State		-0.003			-0.320	
		(0.086)			(0.213)	
Align* MP			0.282***			-0.456***
			(0.090)			(0.169)
Align * Total Council Minister			-0.253***			0.520***
			(0.064)			(0.140)
Align * Swing State			0.331***			-0.313
			(0.098)			(0.259)
Total Grants^	-0.035***	-0.036***	-0.038***	0.363***	0.355***	0.373***
	(0.007)	(0.007)	(0.007)	(0.025)	(0.025)	(0.025)
Constant	14.039***	13.897***	13.760***	-1.417	-2.132	-1.817
	(0.771)	(0.762)	(0.768)	(2.880)	(2.814)	(2.795)
Observations	870	870	870	870	870	870
Adjusted R-squared	0.921	0.920	0.925	0.899	0.900	0.900
Control	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Years FE	Yes	Yes	Yes	Yes	Yes	Yes

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1, " ^ " shows as proportion of GSDP

Table 6

	Total Grant^			Total Loan^			Interest Payment^		
VARIABLES	OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS
Total Alignment* MP	-0.214			0.261			0.027		
	(0.313)			(0.211)			(0.055)		
Total Alignment* Total Council Minister	0.083			-0.142			-0.053**		
	(0.206)			(0.145)			(0.024)		
Total Alignment * Swing State	0.116			0.076			0.058		
	(0.398)			(0.243)			(0.065)		
Main Party * MP		0.022			-0.015			-0.082*	
		(0.330)			(0.167)			(0.045)	
Main Party * Total Council Minister		0.387			-0.064			-0.003	
		(0.271)			(0.119)			(0.026)	
Main Party * Swing State		-0.078			-0.031			0.129**	
		(0.422)			(0.258)			(0.064)	
Align * MP			0.071			0.505***			0.198***
			(0.335)			(0.158)			(0.067)
Align * Total Council Minister			-1.954***			-0.319**			-0.157***
			(0.349)			(0.158)			(0.059)
Align * Swing State			0.649			0.355			-0.085
			(0.613)			(0.403)			(0.094)
Constant	22.930***	22.833***	20.632***	1.084	0.659	1.679	1.868**	1.849**	2.247***
	(5.651)	(5.700)	(5.499)	(2.507)	(2.658)	(2.399)	(0.831)	(0.821)	(0.859)
Observations	870	870	870	870	870	870	870	870	870
Adjusted R-squared	0.939	0.940	0.944	0.386	0.386	0.392	0.891	0.892	0.894
control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
state FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Years FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1, "^" shows as proportion of GSDP

Annexure

Table 1

Table 1: Regression Results of Primary Deficit on Political Variables				
	(1)	(2)	(3)	(4)
Variables	OLS	OLS	Panel Fixed Effect	2SLS
Total Alignment	0.517***	0.625***	0.625***	0.683**
	(0.186)	(0.187)	(0.162)	(0.307)
MP	-0.0863	-0.0236	-0.0236	-0.218
	(0.124)	(0.113)	(0.146)	(0.195)
Total Council Minister	-0.138**	-0.140**	-0.140***	0.0816
	(0.057)	(0.055)	(0.046)	(0.179)
Swing State	0.289	0.447***	0.447*	0.639***
	(0.178)	(0.172)	(0.253)	(0.205)
NDA	-2.541***	-2.165**	-2.165	-1.467
	(.567)	(1.044)	(1.450)	(.981)
F Lok Sabha Election	0.393	-2.933***	-2.933**	-2.397***
	(1.693)	(0.967)	(1.378)	(0.903)
F State Election	0.399*	0.410*	0.410	0.405*
	(0.202)	(0.188)	(0.247)	(0.183)
Constant	2.842***	19.97***	16.95**	19.35***
	(0.475)	(4.122)	(6.294)	(4.193)
Observations	917	875	875	844
R-squared	0.183	0.318	0.258	0.309
Control	No	Yes	Yes	Yes
state FE	Yes	Yes		Yes
Years FE	Yes	Yes	Yes	Yes
Number of st_code			34	

Table 2

Table 7: Interaction Effects of Political Variables on Primary Deficit			
	(1)	(2)	(3)
Variables	OLS	OLS	OLS
Total Alignment * MP	-0.484**		
	(0.195)		
Total Alignment * Total Council Minister	0.122		
	(0.113)		
Total Alignment * Swing State	-0.481		
	(0.301)		
Main Party * MP		0.105	
		(0.197)	
Main Party * Total Council Minister		-0.102	
		(0.126)	
MainParty * Swing State		-0.642	
		(0.318)	
Align Party * MP			-0.838***
			(0.209)
Align Party * Total Council Minister			0.634***
			(0.170)
Align Party * Swing State			-0.347
			(0.439)
Constant	17.332***	17.461***	14.567***
	(3.475)	(3.453)	(3.375)
Observations	875	875	875
Adjusted R-squared	0.252	0.252	0.252
Control	Yes	Yes	Yes
State FE	Yes	Yes	Yes
Years FE	Yes	Yes	Yes

Economic control

1)	State Real GDP weightage	Relative variable
2)	Inflation	one variable
3)	Population weightage	Relative to all state population
4)	SC/ST	1)SC_POP 2)ST_POP
5)	HCPR	Head Count Poverty Ratio
6)	Rural _GSDP	1) rural percentage of total population
7)	Agri_GSDP	Share of agriculture /GSDP of that state
8)	Rainfall	in millimeter
9)	State Own Tax Revenue	Taken fron RBI file
10)	Centre share of tax	Taken fron RBI file
11)	Grant from centre	Taken fron RBI file
12)	Dependency Varible	(centre share of tax + grant from centre)/(own tax revenue + centre share of tax + grant from centre)
13)	DEBT_GSDP	From RBI

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