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Coalition Governments: Fiscal Implication for the Indian Economy

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Abstract

The Indian polity has been through 43 coalition governments at the state level between 1966/67 and 1998/99. In the present study we attempt to examine what this change in form of government from single party to coalitions has meant for the economy. The results of our study which examines the post 1980 period give us reason to be optimistic. Coalitions at the state government level appear to have, on an average, done well to increase capital expenditures particularly capital expenditures on social services and other developmental categories. They have, however, not succeeded in taking politically hard decisions of curbing revenue expenditures and revenue deficits. It is our contention that the weak majority of coalition governments is their major strength. The tenuous hold of coalitions on power gives them a license for undertaking reforms. If the opportunity is taken to undertake the more 'politically difficult' reforms to prune revenue expenditures then the 'era of coalitions' would turn out to be a blessing in disguise for the Indian economy.

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1. Introduction

Economists working in the area of *Public Choice* or *New Political Economy* have sought to build bridges across the disciplines of economics and political science. Politico-economic modeling has developed significantly in the western world but is fast gaining popularity in the developing nations. In the Indian context there have been some initial attempts to formally model the impact of interest groups (Karnik and Lalvani, 1996, 1997) and political business cycles (Karnik 1990; Sen and Vaidya 1996; Lalvani 1997, 1999; Khemani, 2000). Yet another feature of the Indian polity which has caught the attention of researchers is the transition from 'one party dominant system' in the early years after independence when the Indian National Congress was omnipotent and omnipresent in all parts of the country in 1951 to the coalition form of gvernment in 1967. While the experience of coalition governments at the central government level goes back to 1977, at the level of state governments it dates back to 1967. In recent years more and more states seem to find that elections leave them with a fractured mandate thus necessitating political parties to form alliances due to electoral compulsions. Politicians across parties seem to feel that India has entered '*an era of coalitions*' and that '*coalition politics is here to stay'.*

In the present study we attempt to examine what this change in form of government from single party to coalitions has meant for the economy. Since there is considerable experience of coalition governments in many states of India, in this paper we make a preliminary attempt to formally model and capture the economic impact of coalition governments at the state government level. Section 2 of the paper discusses the issues related to party systems and their policy implications; Section 3 chronologically lists out the various coalition governments at the central government level and across the states of India; Section 4 elaborates on the empirical exercise carried out in the present study. Finally, Section 5 concludes.

2. Party System and Policy Implication

There are a number of features of party systems and party organization that are salient for the understanding of political behaviour and resulting policy outcomes but fragmentation and polarization have received sustained attention. Fragmented systems are characterized by many competing parties. Cohesive party systems have opposite characteristics: a small number of larger, more encompassing parties, typically with more stable organizational structures and basis of electoral support. Polarization is defined by the ideological distance among parties. In developing countries, however, parties cannot be placed on the same left-right dimension that has been the core of party systems in advanced countries.

Roubini and Sachs (1989) have listed out some of the reasons why coalition governments in parliamentary systems find it hard to balance the budget. Firstly, individual coalition partners in multi-party governments have distinct interests. A typical prisoner's dilemma situation is likely to arise with respect to budget cuts. While all the partners of a coalition will prefer budget cuts, each individual partner may have the incentive to protect its own share of the budget. The non-cooperative solution of no budget cuts is likely to arise. Secondly, each of the individual coalition partners has a veto against change. Even very small parties within a coalition are powerful by virtue of the power to break the government. Thirdly, enforcement mechanisms among coalition partners will often be very weak. Thus, Roubini and Sachs (1989) point out that distinct spending objectives of coalition members, veto powers over parts of the budget and an inability to make binding commitments with other coalition members are likely to result in prolonged and excessive budget deficits. Empirical testing of their model shows the political cohesion variable (0 for one party majority; 1 for coalition government with two partners; 2 for coalition government with three partners and 3 for minority government) to be significantly affecting the change in net debt/GDP ratio.

Similarly, Haggard and Kaufman (1995) argue that characteristics of the party system have predictable policy consequence and that fragmentation creates impediments for the co-ordination required to initiate and sustain policy changes. More cohesive systems, on the other hand, are more likely to generate stable electoral and legislative support for economic reform.

Empirical support for the thesis that weaker governments are associated with higher deficits was also obtained by Edin and Ohlsson (1991). Their conclusion, however, rests on the inclusion of minority governments. Perotti and Kontopoulos (1998) find the result vanishing when minority governments are excluded. This suggests that minority governments are unable to raise taxes because of the lack of political support. The result also suggests that the distinction between minority and majority (related to the strength of government) is different from the notion of fragmentation (related to number of decision makers). Perotti and Kontopoulos (1998) find that cabinet size and coalition size have disproportionate effect on transfers and especially wage government consumption, the two expenditure items that are key factors in the success of fiscal consolidation.

Echeverri-Gent (1998) in his discussion on the reform process in India under various political regimes at the center speaks of how weak coalition and minority governments seem to have fared better than single party governments in India. He draws attention to the fact that the Rajiv Gandhi government, which came to power with a thumping majority of 77 per cent seats in the Lok Sabha in 1985 did not initiate any bold reforms. In contrast, Narasimha Rao's minority government and the United Front coalition government took many bold decisions and major reform measures were introduced under both, weak government of Narasimha Rao and the United Front coalition. This paradoxical situation may be explained by the fact that the strong government under Rajiv Gandhi had a large majority and hence dissidence of few members would not threaten the party's hold over the government. Thus the strongest opposition to some of the reform measures came from within the party. In contrast, Rao's minority government had such a tenuous hold over power that even a few defections would threaten to bring down the government. Losing power would have left all members of the incumbent party worse off. This simple logic holds good for coalition governments too, which were formed by parties coming together and forming alliances purely on account of electoral compulsions and those governments, which have come to power with a slim majority. *Fear of losing power could in fact be considered the biggest strength of a weak coalition*. A downfall of the government would be a loss to every member of the coalition. This strength of a weak coalition i.e. the fear of being out of government if the government fell is likely to allow economic reforms to be initiated and sustained.

The only study, which empirically examines coalition governments and their impact on the Indian economy is

Dutta (1996), who considers the impact of coalition politics on some fiscal variables for the period 1967 to 1993. His study concludes coalition governments have had an adverse impact on the fiscal situation in India. However, with the sample period now extendable to 1999 and with the experience of many more coalition governments, we decided to re-examine the issue and also consider the impact on some key components of expenditures too. Also, we wished to examine if the result of Dutta (1996) was robust to the introduction of control variables.

In section 3 of the study that follows, we chronologically trace out the different coalition governments that have been formed at both, the center and in the various states.

3. Chronology of Coalition Governments in India: Central and State governments

At the central government level the first coalition government that came to power was the Janata Party during 1977-79. This was a turning point in the history of coalitions in India. It brought for the first time a group of non-Congress parties to power at the Central government level. The *Janata Party* came into being when four major parties the *Jan Sangh*, *the Congress (O)*, the *Bharatiya Lok Dal* and *Socialist Party* came together to contest the election with a common symbol and manifesto. The *Janata Party* obtained 43.17 % votes and captured 295 out of 540 seats (i.e. 55.4%). This electoral victory was an outcome of the unity of opposition leaders and parties. Failure of the *Janata Party* coalition was caused by personality clashes, ideological differences and defections. Single party dominance re-appeared during 1980-89. But after the ninth general election of 1989 the situation changed dramatically in favour of coalition governments at the Central government level. First came the *National Front* Government (1989-90). This was followed by the thirteen day government of A.B. Vajpayee in May 1996. From June 1996 to April 1997 the *United Front* government under H.D. Deve Gowda assumed office. After withdrawal of support by *Congress (I)*, the *United Front* government under the leadership of I.K.Gujral remained in office from April 1997 to March 1998. Finally, despite many apprehensions, the BJP (*Bharatiya Janata Party*) led coalition has held on from March 1998 to date.

At the level of state governments the fourth general election of 1967 has been looked upon as a watershed year in Indian politics. Thus coalition politics at the state level came into existence ten years prior to its arrival at the level of Central government. The year 1967 marked the end of Congress domination and ushered in coalition governments in the states of Bihar, Kerala, Orissa, Punjab, Rajasthan, Uttar Pradesh and West Bengal. Since then various states of the Indian federation have experienced coalition governments at different times.

One of the many reasons, which led to the downfall of single party dominance was ‘*defection*’ or ‘*factionalism*’. The word ‘defection’ generally denotes ‘abandonment’. However, in politics an act of political defection is said to signify leaving a party and joining another, nt due to a party split but in quest of individual power or personal disillusionment. Defections are not typical to the Indian system alone. They have occurred time and again in British Parliamentary history and have been a feature of politics in Australia and New Zealand. In India, the first instance f defection dates way back to 1935. However, its magnitude has grown significantly since then. During the short period f March to December 1967 out of a total membership of 3447, 314 members i.e. 9% changed party affiliation. During 1957 to 1973 as many as 45 state governments were toppled with 2700 of defections in state legislatures (Fadia, 1984). A large number of defections occurred from the Congress between 1962 and 1966, a period of strain caused by two wars Indo-China and Indo-Pakistan, the death of prominent leaders like Pandit Nehru and Lal Bahadur Shastri and two severe droughts.

Besides defection, there have been other reasons of governments having changed between elections. On some occasions new chief ministers belonging to the same party have been appointed and on others Presidential Rule has been enforced in states. Article 356 of the Indian Constitution provides for imposition of Presidential Rule (PR) when there is a *'failure of Constitutional machinery in the State*'. The ambiguity of the expression '*if a situation has arisen in which the Government of the state cannot be carried on in accordance with the provision of the Constitution*' has led to the article's persistent misuse by all governments. The duration of Presidential Rule has varied from a few weeks to a few months. However, since the data set we are using is annual we take into consideration the financial year in which the Presidential Rule was initiated irrespective of its duration. The in-between election changes of government or chief ministers have not been listed out. In the exceptional case of two or three states where the incumbent government was removed from power within a week or so we have taken note of the new government that assumed office.

In the remaining part of this section we discuss the political scene in 14 major states of India. In Appendix I we list out the incumbent parties which formed the government, both single party and coalitions, in the 14 major states of India since 1967. The abbreviations and full names of the parties appear in the Appendix II.

Andhra Pradesh (AP):

The state of AP has had no experience of coalition governments. It has always voted in favour of single party governments. Till the mid 1980s the state of AP was a Congress stronghold. But with the 1985 election the Telugu Desam Party (TDP) has emerged as the favourite and won four of the five elections after 1985. This state experienced Presidential Rule for short durations in 1979/80; 1980/81;1981/82;1982/83;1990/91 and 1991/92.

Bihar (BIH):

Bihar was a traditional stronghold of the Congress. In the 1967 elections the Congress party suffered one of its major defeats in the state and a non-congress coalition was formed. This marked the beginning of coalition governments in Bihar. The period 1972 to 1989 saw single party governments once again come to power. The 1990 elections saw a return of coalition governments to the state of Bihar. This state has experienced Presidential Rule during some months of 1979/80; 1980/81; 1994/95; 1995/96 and 1998/99.

Gujarat (GUJ):

Gujarat has had only two experiences of coalition governments. First, in 1975 the Janata Front and the second in 1990, the Bharatiya Janata Party (BJP) - Jantata Dal combine. Presidential Rule has been imposed in Gujrat in 1971/72; 1972/73; 1973/74; 1974/75; 1975/76; 1976/77 and 1980/81.

Haryana (HAR):

The State of Haryana came into being on 1st November 1966. The 1967 elections witnessed a Congress victory with absolute majority. However, a week later the ministry collapsed and a coalition ministry under Rao Birendra Singh of the Vishal Haryana Party (VISH) was formed. Soon defections led to mid-term elections in 1968 where once again the Congress secured a majority. The other two experiences of coalitions in Haryana have been under Lok Dal and BJP in 1987 and the Haryana Vikas Party (HVP) - BJP in 1996.

Karnataka (KARN):

The state of Karnataka has not experienced coalition governments at all. The voter in Karnataka has opted for single party government over the years. Presidential Rule has, however, been imposed in the state in 1970/71;1971/72;1977/78; 1989/90;1990/91.

Kerala (KER):

The state of Kerala has had a long history of coalitions. The state with the highest literacy rate in India has chosen to have coalition governments. The two fronts, United Democratic Front (UDF) and the Left Democratic Front (LDF), have since 1977 been alternately voted into power. The high predictability of the results of Kerala's election makes this state a pollster's delight. Predicting election results in Kerala has become very simple. Presidential Rule has been imposed in 1970/71; 1979/80; 1981/82; 1982/83.

Madhya Pradesh (MP):

The state of MP experienced coalition politics for a short duration only. The 1967 elections brought the Congress to power with a majority. However, defections brought about the fall of this government. This resulted in to the state experiencing its first coalition ministry in July 1967. This coalition government lasted till march 1969. This was again followed by a Congress government till the next election in 1972. Ever since, single party governments have ruled the state. 1979/80 and 1980/81 are the years when Presidential Rule was imposed.

Maharashtra (MAHA):

Maharashtra has, by and large been a single party state. Although the United Front did form a coalition for a very brief period in 1967, its first proper coalition government was formed in 1978 under the Congress leadership. Subsequently, coalition politics has returned to the state only as late as 1995 when the Shiv Sena BJP coalition formed the government. The state has not had Presidential Rule being imposed at any time. Thus indicating that political party changes in the state of Maharashtra have been by and large peaceful transitions.

Orissa (OR):

Orissa had a taste of coalition governments as early as 1967 when the Swatantra Party, Janata Party and the Congress came together to form the government. The 1971 elections also led to the formation of a coalition government by the Swatantra Party, Utkal Congress, Jharkhand Party and 3 independents. Since then the state has opted for single party rule.

Punjab (PUN):

Coalition politics in Punjab made its appearance with the 1967 elections. In the 1972 election Congress returned with a clear majority. The 1977 election once again led to formation of a coalition government of the Akali Dal, Janata Party and Communist Party of India (M). Between 1980 and 1997 single party governments ruled the state. 1997 elections once again saw the return of coalition form of government by the Akali Dal-BJP combine. Presidential Rule has been imposed in the state in 1968/69; 1971/72 and 1979/80.

Rajasthan (RAJ):

The first and only experience of coalition in this state was after the 1990 election when the BJP-JD combine formed the government. Presidential Rule has been imposed in the state in 1966/67, 1967/68, 1973/74 and 1979/80.

Tamil Nadu (TN):

The state of Tamil Nadu has had two experiences of coalition governments, the first in 1980 when AIADMK, CPI and CPM joined hands and the second in 1991 when AIADMK and Congress formed a coalition. By and large the state has been under single party rule. Like Kerala, the political scenario in TN has been dominated by two parties and since the 1984 elections we find that consistently the two parties have alternately come to power. 1976/77, 1977/78 were the two years when Presidential Rule had been imposed.

Uttar Pradesh (UP):

UP too has had brief episodes of coalition governments. After the 1967 elections congress emerged as the single largest party but failed to get absolute majority. They did form the government but in just two months a United Front ministry was sworn in. The assembly was dissolved in February 1968. Short duration of Presidential Rule was followed by fresh elections in February 1969. After this short spell of coalitions in the late 1960s, this form of governance has emerged only with the 1993 elections when the SP-BJP combine formed the government. The 1996 elections have brought the BJP and allies to power.

West Bengal (WB):

The state of West Bengal has created history in the assembly election 2001 by electing the same Left Front coalition for the sixth time. This coalition has ruled the state for 24 years from 1977 onwards. It is a classic example of how stable coalition governments can be if ideology is the binding force. With the exception of the Left parties coalition in WB and Kerala all other coalitions in the various states have been guided by electoral compulsions. Presidential Rule has had to be imposed in the state of West Bengal in 1967/68, 1968/69, 1969/70, 1970/71 and 1971/72.

The table on the following page lists out the years when the various states experienced coalition governments. Details of the incumbent parties in the various states have been tabulated in Appendix II.

Table 1
Experience of Coalition Governments and Presidential Rule in States of India
(1967-1999)

STATE	Year of coalition government	Year when Presidential Rule was imposed
Andhra Pradesh	None	1979/80, 1980/81, 1981/82, 1982/83, 1990/91, 1991/92
Bihar	1967, 1969, 1995	1979/80, 1980/81,1994/95, 1995/96, 1998/99
Gujarat	1975, 1990	1971/72, 1972/73, 1973/74, 1974/75, 1975/76, 1976/77 1980/81
Haryana	1967, 1987, 1996	None
Karnataka	None	1970/71, 1971/72, 1977/78, 1989/90, 1990/91
Kerala	1967, 1970, 1977, 1980, 1982, 1987, 1991, 1996, 2001	1970/71, 1979/80, 1981/82, 1982/83
Madhya Pradesh	1967	1979/80, 1980/81
Maharashtra	1967, 1980, 1995, 1999	None
Orissa	1967, 1971	1981/82, 1994/95
Punjab	1967, 1977, 1997	1968/69, 1971/72, 1979/80
Rajasthan	1990	1966/67, 1967/68, 1973/74, 1979/80
Tamil Nadu	1980, 1991	1976/77, 1977/78
Uttar Pradesh	1967, 1993, 1996	1971/72, 1992/93, 1993/94
West Bengal	1967, 1969, 1971, 1972, 1977, 1980, 1982, 1987, 1991, 1996	1967/68, 1968/69, 1969/70, 1970/71, 1971/72

We find that while states like Andhra Pradesh and Karnataka have experienced no coalition governments,

others like West Bengal and Kerala have had coalition governments for most of the years. Other states lie between the two extremes and have experienced three to four coalition governments.

4. Methodology and Empirical Findings

In the present study we set out to examine the impact of the coalition form of government on various fiscal variables and on the per capita State Domestic Product (PCSDP). Since state governments in India have experienced coalition governments for a much longer time than the center, performance of coalition versus single party governments could be better discerned if the analysis is carried out at the level of state governments. Hence, for our sample we settled on 14 major states of India listed out in section 3 above. The time span that we chose to consider ranges from 1981/82 to 1998/99. In the period prior to this i.e. from 1967, when the first coalition came into existence, till 1980 only 16 coalition governments had taken charge across the 14 states. However, in the post 1980 period we have 27 coalition governments which have governed the 14 states of India. With greater experience of coalition governments in the post 1980 period we chose to let our sample of 14 states cover the period 1981/82 to 1998/99. For each of the models to be estimated we obtain Generalised Least Squares (GLS) estimates of pooled cross section time series models which have been corrected for *Cross-Sectional Hetroscedasticity, Cross–Sectional Correlation and Autococorrelation.* Such a model, which allows for cross-sectional correlation is most suited to problems, which have as cross-sectional units, geographical regions with arbitrarily drawn boundaries. Cross-sectional correlation would therefore be an appropriate assumption in the present context where the states of India are the cross-sectional units being considered (Kmenta 1990,Greene 2000).

The basic framework for this analysis is the generalised regression model:

$$y_{it} = \beta' x_{it} + \varepsilon_{it}$$

The classical regression model specifies

$E[\varepsilon_{it}] = 0$
$Var[\varepsilon_{it}] = \sigma^2$
$Cov[\varepsilon_{it}, \varepsilon_{js}] = 0$ if $t \neq s$ or $i \neq j$

If we relax the assumption of a fixed σ^2 and allow it to vary across i. This results in a groupwise hetroscedastic model.

The extension of the model for cross-sectional, or contemporaneous correlation is

$E[\varepsilon_i \varepsilon_j'] = \sigma_{ij} I$

Finally, we allow for autocorrelation within cross-sectional units. The pooled model that we estimate is of the form:

$$GOV_{it} = a_i + b_i X_{it} + b_{zi} Z_{it} + D_{it} + e_{it} \qquad \textbf{(1)}$$

Where,

GOV = measure of government expenditure or its components or the growth rate of per capita income.

X_{it} = vector of explanatory variables

Z_{it} = variable of interest viz. Type of Government
0 when single party government
1 when coalition government

D_{it} = intercept dummies for each cross-sectional unit.

e_{it} = random disturbance term

At this juncture we would like to draw attention to the fact that that we have assumed that the coalition government of West Bengal is a single party and not a coalition. The rationale for this being that West Bengal is the exceptional case where the leading party of the coalition, CPI(M), has always secured a clear majority of 51% seats on its own. (The 2001 election is the first time when the CPI(M) has fallen short of the 51% mark. However, the sample period of this study ranges from 1981/82 to 1998/99). Since the question we are asking is "does a tenuous hold over the government by a coalition cause coalition governments to perform better than single party governments ?" it would be incorrect to consider the West Bengal coalition (where the leading party has always secured a clear majority) on par with other coalitions which have a tenuous hold on the government.

The dependent variables that we chose to examine and the independent and control variables used in our estimation have been listed out and defined in the following table:

TABLE 2

Variable	*Definition*	*Expected signs to Vindicate Echiverri-Gent Hypothesis*
Dependent Variables		
PKOUT	Capital Outlay (in per capita terms)	$\frac{\partial PKOUT}{\partial COAL} \geq 0$
PDEK	Developmental Expenditures on capital account (in per capita terms)	$\frac{\partial PDEK}{\partial COAL} \geq 0$
PKSOC	Capital expenditure on social services (in per capita terms)	$\frac{\partial PKSOC}{\partial COAL} \geq 0$
PRX	Expenditure on Revenue account (in per capita terms)	$\frac{\partial PRX}{\partial COAL} \geq 0$
PRRC	Receipts on Revenue account (in per capita terms)	$\frac{\partial PRRC}{\partial COAL} \geq 0$
PRDEF	Revenue deficits (in per capita terms)	$\frac{\partial PRDEF}{\partial COAL} \geq 0$
KOUTY	Capital Outlay (as per cent of SDP)	$\frac{\partial KOUTY}{\partial COAL} \geq 0$
DEKY	Developmental Expenditures on capital account (as per cent of SDP)	$\frac{\partial DEKY}{\partial COAL} \geq 0$
KSOCY	Capital expenditure on social services (as per cent of SDP)	$\frac{\partial KSOCY}{\partial COAL} \geq 0$
RXY	Expenditure on Revenue account (as per cent of SDP)	$\frac{\partial RXY}{\partial COAL} \geq 0$
RRCY	Expenditure on Revenue account (as per cent of SDP)	$\frac{\partial RRCY}{\partial COAL} \geq 0$
RDEFY	Revenue deficits (as per cent of SDP)	$\frac{\partial RDEFY}{\partial COAL} \geq 0$
PCSDP	Per capita Net State Domestic Product	$\frac{\partial PCSDP}{\partial COAL} \geq 0$
Independent Variables		
COAL	1 during the years of coalition governments 0 otherwise	
PR	A dummy variable which takes on value 1 in the years when Presidential Rule was imposed in the states; 0 otherwise	
PRDEF1	Lagged per capita revenue deficits	
URPOP	Urban population/total population	
POV	Percentage of population in poverty	

The states of India vary significantly in terms of population size. A large state like Uttar Pradesh with a large population would definitely incur higher expenditures as compared to a state like Haryana, which has a much smaller population. In order to eliminate the effect of population size on expenditure and income levels in the different states of India, each of our variables in the model have been considered in per capita terms.

A pooled cross section time series analysis was carried out with 252 observation (14 states and 18 time periods for each state from 1981/82 to 1998/99). The models have been estimated without a constant term as intercept dummy variables have been included for each cross sectional unit. Inclusion of the constant term would cause us to fall into a dummy variable trap (see Gujarati, 1995).

To begin with we look at the capital side of the budget. Results obtained have been tabulated in Table 3 below:

TABLE 3

	Model 1	Model 2	Model 3
Dependent variables → / Independent variables ↓	PKOUT	PDEK	PKSOC
COAL	3.28** (9.01)	3.40** (10.25)	0.58** (11.73)
PR	-2.22** (-11.73)	-2.37** (-14.56)	-0.11** (-2.36)
POV	0.013** (4.04)	0.013** (4.58)	0.0037** (6.26)
URPOP	0.68** (32.41)	0.66** (39.07)	0.09** (17.38)
BUSE R^2	0.90	0.94	0.72

** Indicates significance at the 5% level

In model 1 above we find coalition governments (COAL) have a significantly positive impact on capital outlays. This result supports the Echeverri-Gent (1998) hypothesis that coalition governments, which have a tenuous hold on government are seen to perform better as compared to single parties which have a stronger hold on the government but are more prone to defections and opposition from within the party ranks. The dummy variable for Presidential Rule (PR), which represents a situation of political disarray, conforms to expectations and shows up with a negative and significant coefficient.

Among the economic control variables included in the model are proportion of urban population (URPOP) and percentage of population in poverty (POV). The positive and significant coefficient of URPOP conforms to our expectation thereby implying that capital expenditures

increase with increasing demands for infrastructure, both physical and social, which arises on account of urbanization. The positive coefficient was also expected on account of the fact that increasing urbanization is associated with increasing pressure from interest groups, which vie with each other to channelize benefits in their favour. The allocation of government expenditures has been found to be susceptible to such pressures (Olson 1982, Bardhan 1984, Karnik and Lalvani 1997).

The poverty variable (POV) defined as percentage of population in poverty (POV) is used as a proxy measure to capture income inequality. A more precise measure would, undoubtedly, have been the Gini coefficient. However, the Gini coefficient is not available for at the state level after 1993/94. Since the sample period of our study extends to 1998/99 we were unable to use the Gini coefficient as our measure of inequality. Instead, we make use of the variable POV. The government in its distributive role is expected to enhance growth and reduce inequalities by incurring larger expenditures. The POV variable would therefore be expected to show up with a positive sign. The result obtained in model 1 conforms to expectations and POV appears in the model with a positive and significant coefficient.

The results obtained in model 1 for aggregate expenditures on capital account are almost replicated in model 2 with development expenditures on capital account (PDEK) as the dependent variables. Coalition governments are seen to have positive and significant effect on developmental expenditures on capital account. Presidential Rule has a negative and significant impact. POV and URPOP continue to maintain their sign and significance.

In model 3 we have per capita capital expenditure on social services (PKSOC) as the dependent variable. We find that coalition governments have had a positive and significant impact here too. The variable for Presidential Rule continues to show a negative sign. URPOP and POV are both positive and statistically significant.

The overall picture that emerges from an examination of the capital side of the budget is that coalition governments have had a positive impact. Undoubtedly, this result is counter-intuitive. It goes against the widely accepted reasoning that coalition politics is responsible for economic reforms not being pushed forward. The underlying assumption, of course, is that capital expenditures have a beneficial and positive impact on the economy.

Having found that coalition governments have performed better than single party governments on the capital side of the budget, we now turn our attention to the 'current' expenditures and receipts side of the budget. Current Expenditures and budgets are referred to revenue receipts and expenditures in the context of the Indian economy. Echeverri-Gent (1998) had suggested that fragmented governments like those in India are likely to undertake only those reforms, which increase economic resources and arouse less opposition. While capital expenditures are incurred on creation of capital assets, revenue expenditures comprise expenditures incurred on goods and services for current consumption. These expenditures are easily targeted to specific groups and hence are readily made use of by incumbent parties to enrich their vote bank. Large parts of it are spent on salaries of government employees. Increased expenditures on revenue account signal burgeoning government size and populist policies on the part of government. The Echeverri-Gent (1998) hypothesis therefore implies that coalition governments are unlikely to take 'politically hard' decisions like cuts in revenue expenditures. Results obtained for our study have been tabulated in Table 4 below:

TABLE 4

	Model 4	**Model 5**	**Model 6**
Dependent variables → / Independent variables ↓	**PRX**	**PRRC**	**PRDEF**
COAL	13.98** (23.60)	8.40** (10.48)	1.01** (4.62)
PR	-2.89** (-7.36)	-2.69** (-4.30)	-2.52** (-6.87)
PRDEF(-1)	-	-	0.083** (28.39)
POV	0.19** (21.46)	0.12** (7.08)	0.11** (15.28)
URPOP	5.54** (100.8)	4.96** (35.63)	0.25** (7.82)
BUSE R^2	0.99	0.95	0.95

** Indicates significance at the 5% level

Our empirical findings lend support to the Eicheverri-Gent (1998) hypothesis that coalition governments have been unsuccessful in taking 'politically hard' decisions about pruning revenue expenditures. In model 4, COAL is positive and significant. Revenue expenditures, which are by and large consumption expenditures, increased during coalition governments. Presidential Rule is negative and significant, suggesting all categories of expenditures have been curbed during turbulent periods of Presidential Rule. Control variables, POV and URPOP are positive and significant as was seen when the capital side of the budget was examined in Table 3 above.

Model 5 examines the impact of coalition governments on revenue receipts. COAL is positive and significant, suggesting coalition governments have fared well on the revenue front. Once again the Presidential Rule variable is negative and significant. POV and URPOP maintain positive and significant coefficients.

Model 6 examines the impact of coalition governments on revenue deficits[1]. The variable COAL has a positive and significant coefficient, which is in a way implicit in models 4 and 5. Though successful on the receipts front, runaway expenditures on the revenue account have meant coalition governments failed to keep revenue deficits under check. The dummy for Presidential Rule is negative and significant. A dynamic element is introduced via inclusion of lagged revenue deficits. This variable is positive and significant. POV and URPOP are both positive and significant.

In order to check if our results were sensitive to a change in specification of our models we performed sensitivity analysis by re-specifying our government size measures as ratios to State Domestic Product instead of in per capita terms. Results obtained for both the revenue and capital side of the budget are given below:

TABLE 5

	Model 7	**Model 8**	**Model 9**
Dependent variables →	**KOUTY**	**DEKY**	**KSOCY**
Independent variables ↓			
COAL	0.39^{-02}** (3.78)	0.35^{-02}** (3.27)	0.64^{-03}** (6.51)
PR	-0.25^{-02}** (-4.32)	-0.24^{-02}** (-4.38)	-0.30^{-03}** (-2.99)
POV	0.81^{-05} (0.68)	0.80^{-05} (0.67)	0.48^{-05}** (3.71)
URPOP	0.26^{-04} (0.55)	0.21^{-04} (0.45)	0.746^{-04}** (14.07)
BUSE R^2	0.87	0.91	0.81

** Indicates significance at the 5% level

[1] Revenue deficits are defined as the excess of revenue receipts (or current receipts) over revenue expenditure (current expenditures).

TABLE 6

	Model 10	**Model 11**	**Model 12**
Dependent variables →	*RXY*	**RRCY**	**RDEFY**
Independent variables ↓			
COAL	0.14^{-01}** (8.83)	0.99^{-02}** (2.56)	0.38^{-02}* (3.67)
PR	-0.13^{-02}** (-14.36)	-0.27^{-02} (-1.51)	-0.40^{-03}** (-3.99)
PRDEF(-1)	-	-	0.57** (15.71)
POV	0.58^{-03}** (12.13)	0.21^{-03}** (3.73)	-0.17^{-03}** (9.70)
URPOP	0.63^{-02}** (10.09)	0.21^{-02}** (3.79)	0.76^{-03}** (5.64)
BUSE R^2	0.95	0.85	0.83

** Indicates significance at the 5% level

Results obtained in Tables 5 and 6 above, with an alternative specification of our models corroborate the initial findings (Tables 3 and 4) that coalition governments have done well to increase expenditures on capital account but have failed to take the 'politically hard' decision of axing revenue expenditures. It thus appears that the findings of our study are fairly robust to a specification change. The control variables POV and URPOP continue to maintain their positive sign but lose their significance in models 7 and 8 above with capital outlay and development expenditures on capital account are examined. They are, positive and significant when the revenue side of the budget is looked at (Table 6).

As a final test of the performance of coalition governments as compared to that of single party governments we examine the impact of our coalition variable (COAL) on per capita State Domestic Product. The result obtained has been reported below:

$$PCSDP = \underset{(23.5)}{826.57COAL^{**}} - \underset{(-10.55)}{231.49PR^{**}} + \underset{(88.28)}{294.23URPOP^{**}} + \underset{(15.38)}{6.67POV^{**}}$$

BUSE $R^2 = 0.99$ (model 13)

Our primary variable of interest COAL is seen to take on a positive and significant coefficient. Thus coalition governments, which have been successful in raising capital expenditures (Tables 3 and 5) but have failed to curb revenue deficits (Tables 4 and 6), have on the whole succeeded on the income front. Coalition governments are seen to be associated with higher per capita State Domestic Product (model 13). The PR variable, as expected, continues to remain negative and significant. URPOP and POV, the control variables continue to maintain their positive sign and significance.

5. Conclusion

The Indian polity has been through 43 coalition governments at the state level between 1966/67 and 1998/99. With coalition politics having come to occupy the center stage of Indian politics, the time is opportune to examine if this change on the political front is likely to have an adverse impact on the economic front, as is generally believed. The results of our study give us reason to be optimistic. We find that there has been an increase in capital expenditures and in per capita State Domestic Product under coalition governments. However, political compulsions have prevented coalition governments from taking hard decisions of cutting down on revenue expenditures. Revenue expenditures by and large comprise current expenditures like salaries,

subsidies etc. and do not add to capital assets. If the fiscal balance of state governments is to be improved upon, pruning of these burgeoning revenue expenditures, which are economically non-viable, will have to be undertaken.

The present study wishes to draw attention to the fact that the *weak majority* of *coalition governments is their major strength*. Since a downfall of the government would be a loss to every member of the coalition, the fear of losing power could in fact be considered the strength of a weak coalition. This tenuous hold of coalitions on power gives them the license for undertaking reforms. So far coalitions at the state government level seem to have, on an average, done well to increase capital expenditures particularly capital expenditures on social services and other developmental categories. Leading parties of coalition governments, both at the center and the states could take the opportunity to undertake some of the more 'politically difficult' reforms to prune revenue expenditures. If this does happen then the 'era of coalitions' would turn out to be a blessing in disguise for the Indian economy !

APPENDIX I

Table A1: Andhra Pradesh

Assembly Election year	Incumbent party/parties	Single/coalition
1967	INC	Single
1972	INC	Single
1978	INC	Single
1983	INC	Single
1985	TDP	Single
1989	INC	Single
1994	TDP	Single
1999	TDP	Single

Table A2: Bihar

Assembly Election year	Incumbent party/parties	Single/coalition
1967	United Front (SSP, PSP, JS, JKD, CPI)	Coalition
1969	INC, BKD, SD,HJD,JP, Swa. P, 6 indep.	Coalition
1972	INC	Single
1977	JP	Single
1980	INC	Single
1985	INC	Single
1990	JD+20 INDEP	Single
1995	JD, CPI, CPM, MCC (supp. by JMM(M) & JMM(S)	Coalition
2000	RJD-CONG	Coalition

Table A3: *Gujarat*

Assembly Election year	Incumbent party/parties	Single/coalition
1967	INC	Single
1972	INC	Single
1975	Janata Front (cong(o), JS, BLD, SP, indep 7)	Coalition
1980	INC	Single
1985	INC	Single
1990	BJP-JD	Coalition
1995	BJP	Single
1998	BJP	Single

Table A4: *Haryana*

Assembly Election year	Incumbent party/parties	Single/coalition
1967	INC After a week followed by a coalition under Rao Birendra Singh of VISH	Coalition
1968	INC	Single
1972	INC	Single
1977	JP	Single
1982	INC	Single
1987	Lok Dal(B)-BJP	Coalition
1991	INC	Single
1996	HVP-BJP	Coalition
2000	INLD	Single

Table A5: *Karnataka*

Assembly Election year	Incumbent party/parties	Single/coalition
1967	INC	Single
1972	INC	Single
1978	INC	Single
1983	JP	Single
1985	JP	Single
1989	INC	Single
1994	JD	Single
1999	INC	Single

Table A6: *Kerala*

Assembly Election year	Incumbent party/parties	Single/coalition
1967	United Front (CPM, CPI, SSP, RSP, KSP, ML)	Coalition
1970	CPI led coalition (outside support of congress)	Coalition
1977	UDF (congress led)	Coalition
1980	LDF (CPM led)	Coalition
1982	UDF (congress led)	Coalition
1987	LDF (CPM led)	Coalition
1991	UDF (congress led)	Coalition
1996	LDF (CPM led)	Coalition
2001	UDF (congress led)	Coalition

Table A7: *Madhya Pradesh*

Assembly Election year	Incumbent party/parties	Single/coalition
1967	INC /followed by UF/followed by INC	Single/ coalition/ Single
1972	INC	Single
1977	INC	Single
1980	JP	Single
1985	INC	Single
1990	INC	Single
1993	BJP	Single
1998	INC	Single

Table A8: *Maharashtra*

Assembly Election year	Incumbent party/parties	Single/coalition
1967	INC /followed by UF/followed by INC	Single/ coalition/ Single
1972	INC	Single
1978	INC	Single
1980	INC led coalition	Coalition
1985	INC	Single
1990	INC	Single
1995	SHS-BJP	Coalition
1999	INC-NCP	Coalition

Table A9: *Orissa*

Assembly Election year	Incumbent party/parties	Single/coalition
1967	Swantantra party, Janta Party and Congress	Coalition
1971	Swatantra Party, Utkal Congress, Jharkhand party and 3 indep.	Coalition
1974	INC	Single
1977	JP	Single
1980	INC	Single
1985	INC	Single
1990	JD	Single
1995	INC	Single
2000	BJD	Single

Table A10: *Punjab*

Assembly Election year	Incumbent party/parties	Single/coalition
1967	UF [AKD (tara singh), ADS, CPI(M), CPI , Jan sangh, Republican party, SSP, Indep.]	Coalition
1969	Akali Dal (sant)	Single
1972	INC	Single
1977	Akali dal-Janata Party-CPI(M)	Coalition
1980	INC	Single
1985	Akalis	Single
1992	INC	Single
1997	Akali Dal-BJP	Coalition

Table A11: *Rajasthan*

Assembly Election year	Incumbent party/parties	Single/coalition
1967	INC	Single
1972	INC	Single
1977	JP	Single
1980	INC	Single
1985	INC	Single
1990	BJP-JD	Coalition
1993	BJP	Single
1998	INC	Single

Table A12: *Tamil Nadu*

Assembly Election year	Incumbent party/parties	Single/coalition
1967	DMK	Single
1971	DMK	Single
1977	AIADMK	Single
1980	AIADMK-CPI-CPM	Coalition
1984	AIADMK	Single
1989	DMK	Single
1991	AIADMK-INC	Coalition
1996	DMK	Single
2001	AIADMK-INC	Coalition

Table A13: *Uttar Pradesh*

Assembly Election year	Incumbent party/parties	Single/coalition
1967	INC /followed by UF coalition/	Single/ coalition
1969	INC	Single
1974	INC	Single
1977	JP	Single
1980	INC	Single
1985	INC	Single
1989	JD	Single
1991	BJP	Single
1993	SP-BSP	Coalition
1996	BJP and allies	Coalition

Table A14: *West Bengal*

Assembly Election year	Incumbent party/parties	Single/coalition
1967	UF	Coalition
1969	UF	Coalition
1971	Democratic Front	Coalition
1972	INC	Single
1977	CPI (M) led LF	Coalition
1980	CPI (M) led LF	Coalition
1982	CPI (M) led LF	Coalition
1987	CPI (M) led LF	Coalition
1991	CPI (M) led LF	Coalition
1996	CPI (M) led LF	Coalition
2001	CPI (M) led LF	Coalition

APPENDIX II

CODE	PARTY NAME
ADMK	Anna Dravida Munnetra Kazhagam
ADS	Akali dal (sant Fateh Singh group)
AKD (TARA sING)	Akali Dal (Master Tara Singh group)
BJP	Bharatiya Janata Party
BKD	Bharatiya Kranti Dal
BLD	Bharatiya Lok Dal (Janata Party)
BSP	Bahujan Samaj Party
CPI	Communist Party of India
CPI(M)	Communist Party of India (Marxist)
DMK	Dravida Munnetra Kazhagam
HJD	Hul Jharkhand Party
HVP	Haryana Vikas Party
INC	Indian National Congress
INCO	Indian National Congress (organised)
INCU	Indian National Congress Urs
INLD	Indian National Lok Dal
JD	Janata Dal
JHP	Jharkhand Party
JKD	Jana Kranti Dal
JMM(M)	Jharkhand Mukti Morcha
JMS	Jai Mahakali Nigrani Samiti
JP	Janata Party
JS	Jana Sangh
KSP	Kerala Socialist Party
LD (B)	Lok Dal (Bahuguna)
LDF	Left Democratic Front
LF	Left Front
ML	Muslim League
NCP	Nationalist Congress Party
PSP	Praja Socialist Party
RJD	Rashtriya Janata Dal
RSP	Revolutionary Socialist Party
SHD	Shoshit Dal
SP	Sarvodaya Party
SHS	Shiv Sena
SSP	Samyukta Socialist Party
SWA	Swatantra Party
TDP	Telugu Desam Party
UDF	United Democratic Front

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