

Issues and Challenges in Fiscal Decentralisation to Rural Local Governments of North-Eastern States in India

Kausik K. Bhadra and Panchali Banerjee

North-eastern states in India are the most fiscally stressed states. Due to their unfavourable geographical terrain, the states have limited capacity to mobilise revenue from own sources, which has made them excessively dependant on intergovernmental fiscal transfers. In this regard, the study, at the outset, attempts to understand the underlying issues in devolutions of functions, functionaries and finances, and subsequently empirically explores the issues in fiscal decentralisation to the PRIs through flypaper effect for these states using local level fiscal data. Notwithstanding sparse own revenues of the PRIs, the result from Arellano-Bond dynamic panel model shows that local expenditure is more responsive to local own revenues than transfers, hence, there is no flypaper effect. The sparse and incongruous devolutions of functionaries and finances relating to the devolved functions signify that the completion of clear activity mapping is imperative so that the devolved funds would not go wasted.

Keywords: local fiscal autonomy, devolution of 3Fs, flypaper effect, activity mapping, state finance commissions

Introduction

Decentralisation is defined as a practice of the devolutions of political (functions), administrative (functionaries) and fiscal (finances) authorities, responsibilities and resources through deconcentration, delegation or devolution from central government to locally elected bodies in rural and urban areas for greater regional autonomy. Decentralisation has lingered undefined at the applied sphere as it has grown as an adaptable practice across many emerging economies, and thereby the overall decentralised public management has remained an ongoing contentious area. Emerged from literature, the effectiveness of decentralisation process largely depends on the interface between the degree of decentralisation (in terms of asymmetry in functions

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and finances) and institutions that are involved in the devolution of functions, functionaries and finances (3Fs) (Tanzi, 1996).

The traditional theories of intergovernmental transfers in fiscal federalism and its impact on service delivery; and the role and performance of bureaucrats in the transfers system have been classified as first generation theories (FGT) and second generation theories (SGT). Qian and Weingast (1997) first have dichotomised the theories as FGT and SGT. Later; Oates (2005) succinctly presented a survey of fiscal federalism literature with such irreconcilable difference. A good deal of mainstream literature (Arrow, 1970; Samuelson, 1954 and 1955; Tiebout, 1956; Musgrave, 1959) has viewed public sector as benign and, bureaucrats and politicians are always motivated to deliver services and do everything to preserve markets. While Samuelson supposed that expenditures are functioned at the central level, Tiebout considered significance of local spending where citizens at local level would reveal their preferences and influence decisions through ballot – a formulation of efficiency rationale for decentralisation.

The SGT of fiscal decentralisation emphasises the political economy and the institutional aspects of intertemporal budget constraints. Rodden (2003) argued that it is not fiscal decentralisation that matters per se but what form it takes in terms of fiscal autonomy or reliance on intergovernmental transfers that matters. In contrast, Weingast (1995) and McKinnon (1997) highlighted the significance of fiscal autonomy to finance the public services in decentralised budgets. More specifically, the SGT emphasises on the public choice perspective of fiscal federalism, by focusing the behaviour of agents, who are in the process of bringing services to the beneficiaries. In this regard, Niskanen (1968) set forth the possibility of bureaucrats' budget maximising behaviour. On the basis of what the 'flypaper effect' notion and its empirical test have started gaining importance in the fiscal federalism literature.¹

In India, the 73rd and 74th Constitutional Amendment Acts in 1992 had given recognition to the local self-governments as the third tier of governments. After the introduction of this legal approval, India has gone through more than two decades of decentralised governance but the status quo of fiscal decentralisation is disquieting. The devolutions of functionaries and finances are sparse in order to adequately perform all the 29 functions transferred to the Rural Local Bodies (RLBs) i.e. *Panchayati Raj* Institutions (PRIs) as per the Eleventh Schedule of Indian Constitution (Article 243G), and thus, such asymmetry is leading to the issues of 'unfunded mandates' (Chakraborty et al., 2016). In addition, scant own revenue mobilisation against gradual upsurge in expenditure responsibilities at the local level has resulted in abysmally low fiscal autonomy of the PRIs for all states combined (Fourteenth Finance Commission Report, 2015). This has made the states overly dependent on intergovernmental fiscal transfers. However, such transfer dependency is even more acute for the north-eastern states and their PRIs vis-à-vis remaining other states and their PRIs in India, especially when the scope for mobilising resources from their own sources (tax and non-tax) is limited (Dutta and Dutta, 2014). The term "north-eastern region" in India alludes to eight states, of which, there are seven contiguous states (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura) along with the state

of Sikkim. These eight states' overall fiscal management is administered by some exogenous factors to a great extent, which are: unfavourable geographical terrain, sharing long international borders, dense forest covers and so forth. Their growing expenditure responsibilities against lesser scope to generate revenues from own sources have made them an excessively transfer-dependent entity.

In this backdrop, the objective of this paper is to examine the impact of decentralised governance on the fiscal autonomy at the local level. To approach this objective, the paper critically discusses the issues and challenges of decentralised governance in mobilising revenues from own sources, and subsequently, empirically explores the 'flypaper effect' – whether local government expenditure is more responsive to an amount of increase in untied transfers than the equivalent increase in own revenue. The paper is organised as follows: following this introduction, Section 2 presents the issues relating to the devolution of 3Fs to the PRIs. Section 3 explores whether there is any congruity between state and local finances. Section 4 presents the empirical results and section 5 concludes the paper.

Devolution of Functions, Functionaries and Finances

The 73rd Amendment has provided the Constitutional status to the rural local governments i.e. PRIs whereas the 74th Amendment has made the provisions pertaining to Urban Local Governments. These two Amendments were intended to reinforce public service delivery in a greater detail through improved decentralised governance. In order to achieve the functional autonomy of PRIs, the Eleventh Schedule of the 73rd Amendment to the Constitution has devolved 29 subjects (see Table A.1).

By and large, practice of decentralisation in India is criticised due to its weak interface between political, administrative and fiscal decentralisation (Rangarajan, 2003). Decentralisation practice in India, however, seems to be very much political and inadequate in terms of administrative (devolution of functionaries) and fiscal devolutions. For the north-eastern states, it could be observed from Table 1 that all the 29 subjects enlisted in the Eleventh Schedule have been devolved to the PRIs, but devolutions of functionaries and funds are lagging far behind of the functions. Assam has not yet reported the numbers of functionaries and funds of the functions has been devolved. Sikkim has devolved functionaries on 24 functions whereas the traditional system of rural self-governments does not exist in Meghalaya, Mizoram and Nagaland and thereby, 73rd Constitutional Amendment is not applicable in these three states. As is well-known, matching devolution of functionaries and finances to the devolved functions are highly imperative in order to alleviate such persisting asymmetry in the devolution of 3Fs. In this regard, at the outset, a detailed activity mapping is required, which would elucidate the degree of deficiency exist in the PRIs' administrative and fiscal powers.

The activity mapping is referred to as unbundling of each function / subject into activities and sub-activities. There are three steps involved in order to carry out a clear activity mapping, which are:

1. disaggregate an individual sector into a number of services,
2. since each service contains several activities, thus the second step is to

- unbundle each service into activities and sub-activities; and
3. distribution of the activities and sub-activities to the different levels of the local governments (for the PRIs, there are three tiers - *Zilla Panchayat* (or *Zilla Parishad*) at District level, *Taluka Panchayat* (or *Panchayat Samiti*) at Block level and *Gram Panchayat* at Village level).

However, the activity mapping is not only the north-eastern states but also in the other many states is yet to be completed. Unless it is completed, estimation regarding the requirements of expenditure could not be done since fiscal decentralisation is a subset of decentralised governance, which is the bearer of the effects of both the political and administrative decentralisations (Oommen, 2006).

Devolution of Taxation Power to the PRIs and Issues in Data

One of the required predominant arrangements for improving fiscal autonomy of the PRIs is to augment their own revenues. This can be ensured only when the full authority, in particular, taxation power is devolved to the local bodies, which would enable the PRIs in having full control of earmarking the revenue sources, determination of tax rate, assessment and collection. However, such sort of power devolution by itself may not ensure the improvement in fiscal autonomy unless apposite assessment of their need is done by respective intermediate government and its critical evaluation by the central government. Simultaneously, it would be essential to improve the capacity of the PRIs to administer the levy as well.

The varying nature of assigned taxes to the PRIs across north-eastern states is attributable to their development features through different dominant economic activities. In the three tier PRI structure, the last tier (*Gram Panchayat*) is largely awarded with the tax and non-tax revenue raising authorities while limited revenue raising sources are assigned to the block level and district level panchayats (Annexure A.2 to A.4). The tables explicate that the PRIs of the states are lagging behind of utilising all or majority of the sources. Utilisation of the sources also differs across PRIs of the states. Assam is endowed with more number of assigned sources of tax revenue whereas Tripura has more number of non-tax revenue sources to Gram Panchayats vis-à-vis other three states. In case of assigned sources of tax and non-tax revenues to Block Panchayats, Assam is awarded with greater number of sources whereas Tripura is at the top in case of assigned sources of tax and non-tax revenues to its District Panchayats.

However, utilising greater number of sources by a particular state does not necessarily imply that the state capably generates more revenues than the other states. Pertaining to this point, unavailability of data relating to which source incur how much revenue limits detailed fiscal analysis of local governments. However, one of the perturbing issues in the decentralised setting is the tax base and rates, which are being decided by the state governments. Without putting proper emphasis on understanding potential revenue base followed by assessing their actual needs, such restrained power devolution by the states to their respective PRIs leaves the PRIs with lower than desired own revenue base. This consequently inflates the incompatibility with their expenditure responsibilities.

As mentioned earlier, probing this issue further is difficult since panchayats do not collect their fiscal data in a time series manner, so that evolving nature of taxes with the economic activity wise development could be tracked. The Thirteenth Finance Commission Report (FC-XIII) provided disaggregated data of revenues and expenditures for the period ranging from 2002-03 to 2007-08. The subsequent commission, i.e., FC-XIV also provided these data for the period 2008-09 to 2012-13 but the degree of disaggregation is less vis-à-vis the previous Commission.² The FC-XIV has given data only for the own revenue, total transfers and total expenditure. However, these two Commissions found that these data are not comparable; thereby they did not report and utilise these for analysing the local level fiscal stance in their reports.³ Making an effort to analyse local finances is further compounded by the fact of lack of uniformity in few names of the taxes across states. For instance, among non-tax revenue sources assigned to GPs, Sikkim collects on drainage in the name of “fee” while West Bengal collects the same in the name of “rate”.

However, excessive state control over tax assignment to the PRIs not only limits their fiscal autonomy but broadly makes the fiscal decentralisation futile. The inability in assigning potential sources of revenue to the local governments has led to lower level of own revenue (Jena and Gupta, 2008; Rao and Rao, 2008). The states have not been taking the State Finance Commission (SFC) recommendations seriously in order to expand and reinforce the tax domain. Furthermore, the states are not motivated to periodically review or revise the tax rates at the *Gram Panchayat* level.

Role of the State Finance Commissions

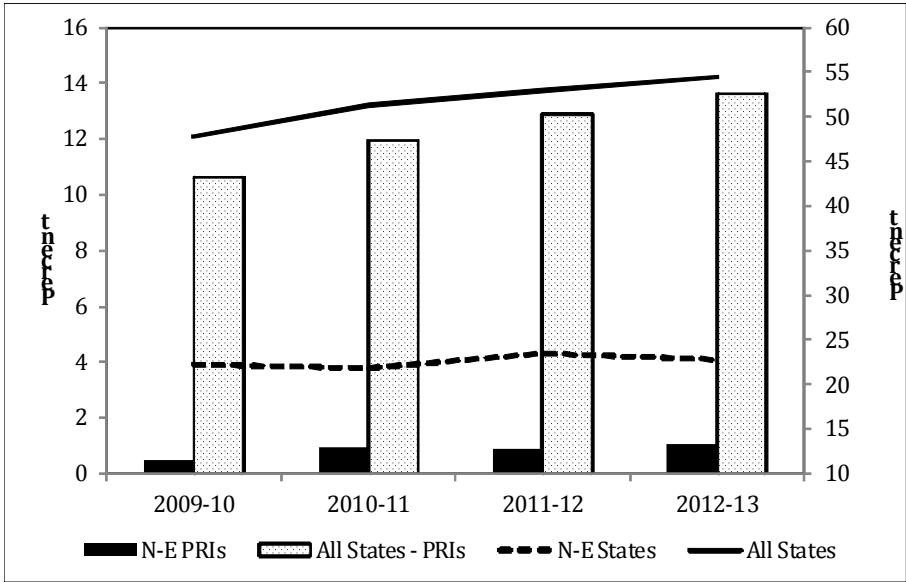
Constitution of a SFC is mandated in Article 243-I (1) and 243-Y (1) of the 73rd and 74th Constitutional Amendment Acts. The SFCs make recommendations for improving fiscal autonomy of the local governments by reviewing their fiscal position. As per Constitutional provisions, the SFCs were required to be set up within one year from the commencement of the 73rd Constitutional Amendment Act, and will last for successive five years. In this course, by 2014-15, scheduling fifth SFC has become due. But, it has been observed that amongst the north-eastern states, only Assam has constituted its fifth SFC whereas two states viz. Sikkim and Tripura have constituted their fourth SFC and two states – Arunachal Pradesh and Manipur are still in their second SFC.

Singh (2008) argued that state governments, in general, impose conditions on UFC recommended tax devolution while giving to the local bodies when it is expected to be kept flexible in practice. In this regard, the commissioning of SFC has been an important step towards lessening the adhocism and arbitrariness in the devolution of funds to the local governments from their respective state governments. However, the situation remains compounded with the states’ ignorant behaviour towards their respective Finance Commission’s recommendations. While the states are not legally bound to comply with the recommendations of their respective SFC, but paying no attention to this institution makes it somewhat irrelevant (Rao and Rao, 2008). However, a considerable difference between what is mandated and envisaged in these two Amendments and how it is acted upon has still remained a cause of worry.

Whether Any Congruity between State and Local Finances: Focus on Central Transfers and Local Fiscal Autonomy

It has been observed from Table 2 that the share of own revenue in total revenue receipts is considerably lower with a declining trend than the share of total central transfers for all the north-eastern states combined. The share of own revenue in total revenue receipts is 20.91 percent in 2014-15 while it was 25.34 percent in 2004-05. On the other hand, the share of total central transfers has increased from 74.66 percent in 2004-05 to 79.09 percent in 2014-15. In contrast to the stance of all north-eastern states combined, the share of own revenue in total revenue receipts for all states combined is higher than the share of total central transfers. Similar to the north-eastern states, the share of transfers also shows an increasing trend. It has increased from 36.87 percent in 2004-05 to 42.11 percent in 2014-15 whereas the share of own revenue, even though it is higher than the share of transfers, has declined to 57.89 percent in 2014-15 from 63.13 percent in 2004-05. In percent to GSDP term, the shares of own revenue and total transfers reveal the similar stance as well.

Now, it is also important to see each north-eastern state-wise contribution in terms of the shares of own revenue and total transfers in total revenue receipts. It could be observed from Table 3 that of total eight states, the average share of own revenue in total revenue receipts for the period 2004-05 to 2014-15 for five states (Arunachal Pradesh, Manipur, Mizoram, Nagaland and Tripura) have below 20 percent. Assam is at the peak with 36 percent whereas Nagaland shows 8.69 percent. However, the decline in the share of own revenue across states with corresponding proliferation of central transfers signifies to have abysmally poor fiscal autonomy ratio⁴ (FAR) of their PRIs. In 2012-13, the FAR of the PRIs for all north-eastern states combined is merely 1.04 percent while the same is 13.62 percent for the PRIs of all states combined. The ratio of all states combined for the same year is 54.46 percent while it is 22.81 percent of all north-eastern states combined (Figure 1). Although, low fiscal autonomy of the north-eastern states is attributable to the sparse fiscal autonomy of their respective PRIs, but the correlation coefficients between 1) the FAR of the PRIs for all north-eastern states and the FAR of all north-eastern states, and between 2) the FAR of the PRIs for all states and the FAR of all states have emerged insignificant. It has ensued predominantly due to the excessive dependency of these states on intergovernmental fiscal transfers, which does not allow them to maintain a congruous FAR between the states and their PRIs. Besides, such abysmally low FAR of the PRIs explicates that issues and challenges lie in both the sides - the top-down management and performance at the lower level. In such situation, where the central transfers are the highly necessary source for meeting their growing expenditure requirements, it is important to empirically explore who stimulates the local expenditure more – own revenue or transfers. This is tested in the subsequent section. Contrary to north-eastern states given a higher share of own revenue in total revenue receipts compared to the share of total central transfers for all states combined and a drastically low FAR for the former simply reflects an acute dependency of north-eastern states on central transfers. This forms an interesting research question to explore if the local expenditure is more responsive to central transfers for north-eastern states.



Source: 1) Finance Accounts (various years), 2) Fourteenth Finance Commission Figure 1: Fiscal Autonomy Ratio: All North-eastern States and All States Combined

Testing the 'Flypaper Effect'

The equivalence theorem in public choice theory suggests that local public spending is identically responsive to either an amount of increase in unconditional transfers or the similar amount of increase in local own revenue (Bradford and Oates, 1971). The notion of flypaper effect however contradicts this equivalence theorem (see Bailey and Connolly, 1998; Figure 1, p.338), which results when a certain amount of increase in unconditional fiscal transfers to a recipient lower government stimulates the level of local public spending comparatively larger than the increase in local income of that equivalent size. This is referred to as grant money sticks where it hits. This is however solely an empirical artefact and thereby any incongruous model specifications may mislead the results (Becker, 1996). Furthermore, Bailey and Connolly (1998) concluded that no single justification of its existence is propounded, which has been theoretically verified. However, Gamkhar and Oates (1996) presented one strong instance of the flypaper effect. The authors empirically explored whether both the state and local expenditures are as responsive to retrenchment in federal grants as it has been to the increases in those grants, and found that for both the increases and decreases in grants, the flypaper effect was operating in roughly similar extent. Besides, one possible anomaly is noticed while empirically attempting the flypaper effect, is that it is difficult to extricate whether the effect is the outcome of political economy aspects of citizen's voting patterns or outcome of the related bureaucratic behaviour of the local level economic agents (Niskanen, 1968; McGuire, 1975; Gramlich, 1977; Romer and Rosenthal, 1980).

However, arguments related to the role of bureaucrats and the impacts of fiscal illusion through information asymmetry created by the bureaucrats have been made to explain the flypaper effect. In this regard, Oates (1979) has given a model to

explain the flypaper effect based on the postulation of fiscal illusion. Voters are given a partial part of the fiscal information while making their decisions. On receipt of the untied funds, the authority either could pass it on to the beneficiaries as an increase in income or the authority could simply aim to deliver the intended services at a lower subsidised price. In either case, the public spending would increase but only the difference in the former effect depends upon the income elasticity of demand while the later explains the impact on local spending hinge on the price elasticity of demand.

While majority of the empirical test of flypaper is United States based, a few can be found in the context of Continental Europe and Latin America. However, since a good deal of literature on intergovernmental transfers in Indian context has developed on the issues and challenges concerning its design, approach and economic rationale, very little research on this aspect can be found on India (see Rajaraman and Vasishtha, 2000; Lalvani, 2002; Karnik and Lalvani, 2005). Lalvani (2002), using data for two time periods separately, that are 1980-81 to 1989-90 and 1991-92 to 1997-98 on 14 general category states, found the occurrence of flypaper effect. While she tested the effect based on state-level data, this paper follows the definition of flypaper effect and thus, examines the effect using local level fiscal data for the north-eastern states.

Overview of Data

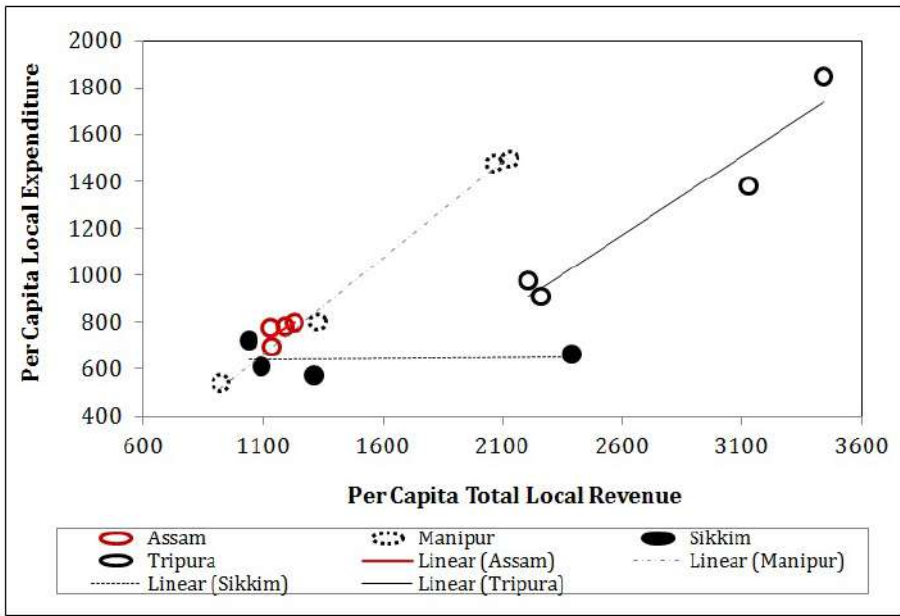
The flypaper effect signifies that an amount of increase in untied intergovernmental transfers stimulates local government expenditure more than the equivalent increase in voters' income. However, the hardest data to gather is the median voters' income in Indian context, therefore this study has used own revenue of local governments as a proxy for median voters' income. This is done with a notion that if Central government cuts down income tax rates then the citizens will be left with an extra income in their hand which would raise their purchasing power and thereby local governments' tax revenue would increase (Cullis and Jones, 1998).

The paper uses local level fiscal data provided by the Fourteenth Finance Commission for the period of four years ranging from 2009-10 to 2012-13 to test whether the flypaper effect occurs in the north-eastern states of India. As mentioned earlier, due to the computing errors and unreported data for many states, highlighted by the Commission, the analysis is restricted to four north-eastern states.⁵ The Arellano-Bond dynamic panel regression has been applied to test the occurrence of flypaper effect through a balanced panel data. The variables, used in the study are presented in Table 4.

Descriptive Statistics

The descriptive statistics of own revenue, total transfers and total expenditure in per capita terms of the PRIs show differing patterns for the four states. At the outset, it is clearly visible that both the mean and median of the total central transfers are much larger vis-à-vis total local own revenue and total local expenditure while both the values are abysmally low in case of own revenue (Table 5 and Table A.5). As a result of such substantial variances amongst the variables, linear relationship between the total local expenditure and total local revenue receipts appears to be weak (Figure 2).

The figure shows a positive relationship among these two variables – per capita local expenditure increases with the increase in per capita total local revenue for the three states (Assam, Manipur and Tripura) except Sikkim. Of these three states, the relationship cluster of Assam signifies that there have not been much temporal increases of these two variables. Sikkim, however, shows that per capita total local expenditure has remained somewhat stagnant while per capita total revenue has increased at a faster rate.



Equation 1 represents the general form of dynamic panel model, where error term has been decomposed into three terms - time specific, state specific and random disturbance term. The subsequent step is to control the time series effect, where the generalised method of moments (GMM) starts with the first difference. This is presented in equation 2. This step also removes the panel specific effects. Equation 3 shows the first-moment condition that does not include explanatory variables and might result in the inefficient outcome as it does not control for reverse causality. Equations 4 and 5 show the necessary and sufficient conditions for reverse causality, respectively.

As mentioned above, the equation 1 is a dynamic panel regression with a lagged dependent variable as a regressor. Following the fundamental literature by Holtz-Eakin et al. (1988), Arellano and Bond (1991), Ahn and Schmidt (1995 and 1997), Arellano and Bover (1995), and of late, Blundell and Bond (1998); we can conclude that the underlying econometric hypothesis should address using a GMM approach. Unlike the static model, we do not need to look at the issues related to the choice of fixed or random effect. However, the unobserved panel level effects make standard estimators inconsistent, since by construction, such effects are correlated with the lag value of the dependent variable. What really more crucial here is to ensure the serial correlation property of the disturbances while formulating the estimation procedure. Thus, the GMM principle by Arellano and Bond (1991) has been adopted. Arellano and Bond proposed an efficient estimation procedure by taking first differences to get rid of the individual effects and then by incorporating all the past information of y_{it} as instruments and this way it makes use of all available moment conditions.⁶ Hence, the authors have derived a steady generalised method of moments (GMM) estimator for the parameters that by default include one year time lag of the dependent variable as covariate and contain unobserved panel level effects – fixed or random. The GMM estimator has predominantly been designed for datasets with larger number of cross sections vis-à-vis the number of time periods. The estimator, however, requires checking and ensuring that there be no autocorrelation in the idiosyncratic errors. This method allows us to take care for potential endogeneity of the explanatory variables and the issue of reverse causality. Following set of equations explain explicitly the moment condition of a dynamic panel model if treated according to GMM formulation of Arellano and Bond.

The consistency of the GMM estimator centres on the validity of the above defined moment conditions. Note that the moment conditions incorporate the hypotheses that residuals being serially uncorrelated and the exogeneity of the explanatory variables. Hence, it is essential to ensure these rules by conducting specification tests. The Sargan test checks the complete rationality of the moment conditions. The null hypothesis of no misspecification in the model is rejected when the minimised GMM criterion function displays a large value compared with a chi-squared distribution with the degree of freedom equal to the difference between the number of moment conditions and number of parameters.

There are two functional forms of Arellano-Bond dynamic panel, which are to be estimated in this paper are presented in the equations 6 and 7 below:

$$PCLE_{it} = \beta_0 + \beta_1 PCLE_{i,t-1} + \beta_2 PCTR_{it} + \beta_3 SFAR_{it} + u_{it} \quad \text{--- (6)}$$

$$u_{it} = \eta_i + \omega_t + v_{it}, \quad i(1)N; \quad t(2)T$$

$$PCLE_{it} = \beta_0 + \beta_1 PCLE_{i,t-1} + \beta_2 PCOR_{it} + \beta_3 PCST_{it} + \beta_4 \ln PCCT_{it} + \beta_5 SFAR_{it} + u_{it} \quad \text{--- (7)}$$

$$u_{it} = \eta_i + \omega_t + v_{it}, \quad i(1)N; \quad t(2)T$$

where, subscript i stands for the four north-eastern states and t for the time-period (2009-10 to 2012-13).

We have performed two equations of Arellano-Bond dynamic panel regression and the results of GMM estimation reported in Table 6 to exhibit how the flypaper effect takes place and captures its plausible magnitude of the relationship between intergovernmental transfers and local spending decisions. Equation 1 has taken per capita total revenue as the only regressor whereas equation 2 has fragmented this variable into three variables – per capita own revenue, per capita central transfers and per capita state transfers. As equation 1 has shown that per capita total revenue has significant stimulatory impact on per capita local spending, thus, we have formed equation 2 to see whether the flypaper effect occurs in the north-eastern states.

It is important to note that the lag of the dependent variable in both the equations bears no significant impact on its subsequent year's value. The fiscal autonomy ratio of these four states has no significant impact local level spending as well. The result in the perspective of the flypaper effect shows that own revenue and central transfers have significant impact in stimulating local spending. But, own revenue appears to have greater impact than central transfers, which signifies that there is no flypaper effect in the north-eastern states. Even though, own revenue of the PRIs has greater impact in stimulating local spending, the amount, over time, remains abysmally poor. The coefficient value of per capita state transfer has appeared insignificant but the average per capita value of these four states combined is also much higher than the same of local own revenue.

Conclusion

In general, the devolution of functions, functionaries and finances have been asymmetric across states including the north-eastern states examined in this study. Fiscal decentralisation practice to the rural local governments in the north-eastern states in India continues to face serious challenges because of these states' and their PRIs' limited capacity to mobilise revenue from their own sources, which leads to their sparse fiscal autonomy ratio. When such situation has made them excessively reliant on intergovernmental fiscal transfers, the main challenge lies in maintaining congruous top-down flow of funds with the devolution of functions and functionaries. Such situation is further compounded by the fact of unwarranted state control over

local tax regime since the intermediate governments decide what would be the sources of PRIs tax, its rates and base. While State Finance Commissions recommend about this aspect, the states often do not abide by the recommendations. Even though the states are not legally bound to adhere to the SFC recommendations but such ignorant behaviour towards this institution has made them somewhat extraneous.

Thus, based on the status quo of such interface between the own revenue and transfers of the PRIs, this paper empirically seeks answer to the flypaper effect – whether an amount of increase in fiscal transfers to a beneficiary lower level unit has comparatively greater stimulatory effect on local public spending more than an increase in local income (own revenue) of that equivalent size. Based on two key conclusions, the flypaper effect has gained importance in fiscal federalism literature over last three decades, although in Indian context very limited literature has explored this effect. These are: one, the flypaper effect is understood as only an empirical phenomenon (Becker, 1996) and second, no single justification of its existence is found that is verified both theoretically and empirically (Bailey and Connolly, 1998). Debates on econometric model specifications with suitable variables and preference on logarithmic functional form over linear to control being overestimated the flypaper effect has occupied a considerable segment of literature. Due to several complexities not only in its estimation part but inadequate theoretical explanations of bureaucratic behaviour and different decentralisation practices across countries based on their priorities have made analysing the flypaper effect multifaceted than one commonly perceives.

We have used the Arellano-Bond dynamic panel estimation to show whether the flypaper effect occurs across the north-eastern states in India. However, the abysmally low fiscal autonomy ratios of these states and their PRIs have made them highly reliant on intergovernmental fiscal transfers. Further, in a situation where the flow of transfers to them is considerably higher than their own revenue, our result shows that there is no flypaper effect in the north-eastern states as the local own revenue has greater stimulatory impact on local expenditure than intergovernmental transfers. This reflects an incongruity between central transfers and own source revenue for the north-eastern states. It also signifies that the completion of clear activity mapping is imperative so that the devolved funds would not go wasted since its requirement would match to the devolutions of functions and functionaries. This implies that own source revenue needs to be better mobilized along with a reallocation of the central transfer funds at the state level which can be achieved by a better transfer design. Besides, proper collection of data relating to each source of tax and non-tax revenues of the PRIs and data relating to a detailed head-wise expenditure are crucial for analysing local fiscal stance.

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Table 1: Status of Devolution of 3Fs to PRIs (as of April 27, 2009)

| State | Functions | Functionaries | Finances |
|----------------------------------|---|--|------------------------------------|
| Assam | 29 | Sparse devolution of functionaries. Officials report to departments. | - |
| Manipur | 29 | 5 | 5 |
| Meghalaya Mizoram Nagaland | 73 rd Constitutional Amendment is not applicable | | |
| Sikkim | 29 | 24 | 24 |
| Tripura | 29 | 5 | Untied funds have been transferred |

Source: Author's Compilation from 1) Ministry of Panchayati Raj, Government of India.

Table 2: Trends in Own Revenue and Central Transfers: North-Eastern States versus All States Combined

Table 2: Trends in Own Revenue and Central Transfers: North-Eastern States versus All States Combined

| Year | Percent to Total Revenue Receipts | | | | Percent to GSDP | | | |
|---------|-----------------------------------|------------|-------------------|------------|-----------------|------------|-------------------|------------|
| | Own Revenue | | Central Transfers | | Own Revenue | | Central Transfers | |
| | N-E States | All States | N-E States | All States | N-E States | All States | N-E States | All States |
| 2004-05 | 25.34 | 63.13 | 74.66 | 36.87 | 6.25 | 8.72 | 18.43 | 5.09 |
| 2005-06 | 25.42 | 60.91 | 74.58 | 39.09 | 6.80 | 8.84 | 19.95 | 5.67 |
| 2006-07 | 25.70 | 60.29 | 74.30 | 39.71 | 7.32 | 9.27 | 21.17 | 6.11 |
| 2007-08 | 24.89 | 58.60 | 75.11 | 41.40 | 7.24 | 9.04 | 21.83 | 6.39 |
| 2008-09 | 25.22 | 58.40 | 74.78 | 41.60 | 7.48 | 8.71 | 22.18 | 6.21 |
| 2009-10 | 25.96 | 59.37 | 74.04 | 40.63 | 7.21 | 8.46 | 20.57 | 5.79 |
| 2010-11 | 23.78 | 59.36 | 76.22 | 40.64 | 6.72 | 8.69 | 21.54 | 5.95 |
| 2011-12 | 25.62 | 60.07 | 74.38 | 39.93 | 7.36 | 8.81 | 21.35 | 5.85 |
| 2012-13 | 23.67 | 61.93 | 76.33 | 38.07 | 6.90 | 9.07 | 22.24 | 5.58 |
| 2013-14 | 24.78 | 62.00 | 75.22 | 38.00 | 6.74 | 8.70 | 20.48 | 5.33 |
| 2014-15 | 20.91 | 57.89 | 79.09 | 42.11 | 5.86 | 7.98 | 22.17 | 5.81 |

Source: Finance Accounts (various years)

Table 3: State-wise Own Revenue and Central Transfers: Average of the period 2004-05 to 2014-15

| State | Percent to Total Revenue Receipts | | Percent to GSDP | |
|-------------------|-----------------------------------|-------------------|-----------------|-------------------|
| | Own Revenue | Central Transfers | Own Revenue | Central Transfers |
| Arunachal Pradesh | 14.34 | 85.66 | 7.81 | 46.63 |
| Assam | 36.00 | 64.00 | 7.55 | 13.43 |
| Manipur | 9.72 | 90.28 | 4.86 | 45.08 |
| Meghalaya | 22.20 | 77.80 | 5.73 | 20.09 |
| Mizoram | 16.57 | 83.43 | 8.47 | 42.66 |
| Nagaland | 8.69 | 91.31 | 3.28 | 34.50 |
| Sikkim | 24.68 | 75.32 | 9.50 | 28.97 |
| Tripura | 15.19 | 84.81 | 4.67 | 26.06 |

Source: Same as Table 2

Table 4: Variables Used in the Study

| Variables | Description |
|-----------|-----------------------------------|
| PCLE | Per capita Local Expenditure |
| PCST | Per capita State Transfers |
| PCCT | Per capita Central Transfers |
| PCOR | Per capita Own Revenue |
| PCTR | Per capita Total Revenue Receipts |
| SFAR | State Fiscal Autonomy Ratio |

Note: To compute 'per capita' of the variables, we have used rural populations

Table 5: Descriptive Statistics

| Statistics | PCLE | PCST | PCCT | PCOR | PCTR | SFAR |
|--------------------------|--------|-------|---------|-------|---------|-------|
| Mean | 765.05 | 45.25 | 1047.48 | 20.00 | 1171.00 | 33.91 |
| Median | 781.92 | 35.00 | 1034.75 | 18.50 | 1163.00 | 33.52 |
| Standard Deviation | 45.48 | 26.95 | 63.75 | 9.49 | 47.69 | 1.60 |
| Coefficient of variation | 0.06 | 0.60 | 0.06 | 0.47 | 0.04 | 0.05 |

Table 6: Effects of Own Revenues and Intergovernmental Transfers on Local Spending

Dependant variable: *per capita local government expenditure*

| Regressors | Eq. 1 | Eq. 2 |
|---------------------|--------------------|--------------------|
| L1.PCLE | 0.480 (0.292) | 0.358 (0.322) |
| PCTR | 0.312** (0.129) | |
| SFAR | 14.21 (14.15) | -22.15 (51.90) |
| PCOR | | 7.060** (3.44) |
| PCCT | | 0.468* (0.280) |
| PCST | | -0.307 (0.588) |
| _CONS | -334.4 (362.92) | 648.1 (1628.03) |
| No. of Observations | 8 | 8 |
| Wald Chi2 | 9271.12 | 8.42 |
| Prob. > Chi2 | 0.0000 | 0.0381 |

Note: 1) robust standard error in parentheses,

2) *** $p \leq 0.01$, ** $0.01 < p \leq 0.05$, * $0.05 < p \leq 0.10$

3) Sargan test of overidentifying restrictions cannot be calculated with robust standard errors.

Annexures

Table A.1: List of 29 Subjects Devolved to the PRIs as per Eleventh Schedule (Article 243G)

| Sl. No. | Subjects |
|---------|--|
| 1 | Agriculture, including agricultural extension |
| 2 | Land improvement, implementation of land reforms, land consolidation and soil conservation |
| 3 | Minor irrigation, water management and watershed development |
| 4 | Animal husbandry, dairying and poultry |
| 5 | Fisheries |
| 6 | Social forestry and farm forestry |
| 7 | Minor forest produce |
| 8 | Small-scale industries, including food processing industries |
| 9 | Khadi, village and cottage industries |
| 10 | Rural housing |
| 11 | Drinking water |

- 12 Fuel and fodder
- 13 Roads, culverts, bridges, ferries, waterways and other means of communication
- 14 Rural electrification, including distribution of electricity
- 15 Non-conventional energy sources
- 16 Poverty alleviation programme
- 17 Education, including primary and secondary schools
- 18 Technical training and vocational education
- 19 Adult and non-formal education
- 20 Libraries
- 21 Cultural activities
- 22 Markets and fairs
- 23 Health and sanitation, including hospitals, primary health centres and dispensaries
- 24 Family welfare
- 25 Women and child development
- 26 Social welfare, including welfare of the handicapped and mentally retarded
- 27 Welfare of the weaker sections, and in particular, of the Scheduled Castes and the Scheduled Tribes
- 28 Public distribution system
- 29 Maintenance of community system

Table A.2: Assigned Sources of Tax and Non-Tax Revenues to Gram Panchayats

| Sl. No. | Sources | AR | AS | SK | TR |
|--------------------|---|----|----|----|----|
| Tax Revenue | | | | | |
| 1 | Tax on lands and buildings (Property / House / Vacant land tax) | √ | √ | √ | √ |
| 2 | Duty on Transfer of Property | | | | √ |
| 3 | Additional Stamp duty | | | | |
| 4 | Tax on professions, trades, callings and employment | | √ | | |
| 5 | Tax on vehicles, boats and animals | | | | |
| 6 | Toll on persons, vehicles and animals | √ | | | |
| 7 | Tax on vehicles other than motor vehicles | | | | |
| 8 | Toll on persons, animals, Vehicles on toll bar established by GP and or on roads (other than kutchra), bridges under GP | | | | √ |
| 9 | Tax on Timber | | √ | | |
| 10 | Tax on advertisements and hoardings | | | | |
| 11 | Pilgrim tax | | | | |
| 12 | Tax on Private haat and private fisheries | | √ | √ | |
| 13 | Tax on Shops, pharmacies, workshops | | √ | | |
| 14 | Tax on commercial crops | | | | |
| 15 | Tax on agricultural land lying uncultivated for more than 2 years | | √ | | |
| 16 | Tax on agricultural land for specific purpose | | | | |

| | | | | | |
|----|--|--|---|---|---|
| 16 | Tax on agricultural land for specific purpose | | | | |
| 17 | Land conversion cess | | | | |
| 18 | Cess or fee on registration of cattle sold | | √ | | |
| 19 | Cess or fee on license for starting tea stall, hotels and restaurants | | √ | | |
| 20 | Tax/Cess on cycles, carts, boats, rickshaw, vehicle drawn by animals | | √ | | |
| 21 | Entertainment tax / duty | | | | √ |
| 22 | Entertainment tax other than cinematograph shows | | | | |
| 23 | Tax on fairs, festivals and other entertainment | | | √ | |
| 24 | Tax on cinemas and theatre | | | | |
| 25 | Lighting tax | | | | |
| 26 | Drainage Tax | | | | |
| 27 | Octroi (other than on petroleum products) | | | | |
| 28 | Garbage disposal tax | | | | |
| 29 | Octroi on animals, goods | | | | |
| 30 | Tax on dogs (pet) | | | | |
| 31 | General/special sanitary cess | | | | |
| 32 | Tax on works of public utility | | | √ | |
| 33 | Tax on rice husking mills, brick kiln, oil mills | | | | |
| 34 | Tax on hawkers, <u>pheriwalas</u> | | | | |
| 35 | Water tax | | | | |
| 36 | Conservancy tax | | | √ | |
| 37 | Service tax for sanitation, water supply, scavenging, street lighting and drainage | | | | |
| 38 | Toll on ferry established or run by GP | | | | √ |
| 39 | Tax on person exposing goods for sale in markets, hats, or melas | | | | |
| 40 | Latrine tax | | | | |
| 41 | Minor Mineral tax | | | | |

Non-Tax Revenue

| | | | | | |
|----|---|---|---|---|---|
| 1 | Fee for providing sanitary arrangement in places of worship, fairs and melas | √ | √ | | √ |
| 2 | Water rate for supply of water for drinking, irrigation etc. | √ | √ | √ | √ |
| 3 | Lighting rate/fees | √ | √ | | √ |
| 4 | Conservancy rate/fees | √ | √ | √ | √ |
| 5 | Fees on license on running trade | √ | | | √ |
| 6 | Fee on registration of vehicles (those not registered under any other law) | | | | √ |
| 7 | Pilgrimage fee | | | | |
| 8 | Market fee and weekly baazars | | | | |
| 9 | Fee on registration of cattle/animals sold | | √ | √ | |
| 10 | Fees on buses and taxis, auto stand, car stand | | | | |
| 11 | Fees on grazing cattle on grazing lands | | | √ | |
| 12 | Fee on sale of goods in fairs, markets, festivals | | | √ | |
| 13 | Fee on cart stand, tonga stand | | | | |
| 14 | Fee for temporary erection or putting a projection on public street or land | | | √ | |
| 15 | Fee for the use of slaughter house, encamping grounds | | | | |
| 16 | Fee for temporary occupation of village sites, roads and other public places | | | | |
| 17 | Fee on tongas | | | | |
| 18 | Adda fee | | | | |
| 19 | Fee on cattle pounds | | | | |
| 20 | Fee for application of creation or re-creation of buildings | | | | |
| 21 | Service charges for toilet facilities, parking facilities etc. | | | | |
| 22 | Fee for dharamshalas, camping ground | | | √ | |
| 23 | Fee for drainage | | | √ | |
| 24 | Fees on plaints, petitions and other processes in suits and cases instituted before the Nyaya Panchayat | | | | |
| 25 | Fees on registration for running trade, wholesale or retail | | | | |
| 26 | Fees on license on dogs, birds and other domestic pet | | | | |
| 27 | Drainage rate | | | | |
| 28 | Fees for use of burning ghat | | | | |
| 29 | Fees on registration for tube-wells fitted with motor-driven pump sets | | | | |
| 30 | Fees from lease and auctions of ponds | | | | |

Source: 1) Relevant State Panchayati Raj Acts,

2) Rao et al. (2011).

Note: 1) Andhra Pradesh, Manipur, Meghalaya, Mizoram and Nagaland – Panchayati Raj Acts of these five states are not available.

Table A.3: Assigned Sources of Tax and Non-Tax Revenues to Block Panchayats

| Sl. No. | Sources | AR | AS | SK | TR |
|------------------------|--|----|----|----|----|
| Tax Revenue | | | | | |
| 1 | Toll on persons, animals, Vehicles on toll bar established by GP and or on roads (other than kutchra), bridges under GP | | √ | | √ |
| 2 | Toll on ferry established or run by GP | | √ | | √ |
| 3 | Surcharge on land revenue | | √ | | |
| 4 | Cess on water rate | | √ | | |
| 5 | Tax on supplying Water and electricity | | √ | | |
| 6 | Tax on Profession, trades and callings | | √ | | |
| 7 | Water Tax | | | | |
| 8 | Tax on Theatrical performance | | | | |
| 9 | Tax on use of agricultural land | | | | |
| 10 | Tax on fairs | | | | |
| 11 | Minor Mineral tax | | | | |
| Non-Tax Revenue | | | | | |
| 1 | Fee on cinema halls, brick kilns, saw mills, timber depots, private fisheries, vegetable gardens for commercial purpose etc. | | √ | | |
| 2 | Fee on registration of vehicles (those not registered under any other law) | | | | √ |
| 3 | Fee for providing sanitary arrangements in places of worship, pilgrimage, fairs and melas | | | | √ |
| 4 | Fee for license for a haat or market | | | | √ |
| 5 | Water rate for supply of water for drinking, irrigation etc. | | | | √ |
| 6 | Lighting rate/fees | | | | √ |
| 7 | Fee on public hospitals, dispensaries, schools, sarais, markets, rest houses and other public institutions | | | | |
| 8 | Fee on supply, storage and preservation of water for drinking, bathing etc. | | | | |
| 9 | Fee for preservation and reclamation of soil and drainage and reclamation of swamps | | | | |
| 10 | Fees fairs, agricultural shows and industrial exhibitions | | | | |
| 11 | Fee for any other license | | | | |

Table A.4: Assigned Sources of Tax and Non-Tax Revenues to District Panchayats

| Sl. No. | Sources | AR | AS | SK | TR |
|------------------------|---|----|----|----|----|
| Tax Revenue | | | | | |
| 1 | Toll on persons, animals, Vehicles on toll bar established by GP and or on roads (other than kutchra), bridges under GP | | | | √ |
| 2 | Toll on ferry established or run by GP | | √ | | √ |
| 3 | Water Tax | | | | |
| 4 | Tax on fairs, melas and other entertainments | | | √ | |
| 5 | Sanitation tax | | | √ | |
| 6 | Pilgrim tax | | | | |
| 7 | Special tax on lands and buildings | | | | |
| 8 | Tax on land benefited by irrigation or developmental works | | | | |
| 9 | Minor Mineral tax | | | | |
| Non-Tax Revenue | | | | | |
| 1 | Fees on registration of boats | | √ | | √ |
| 2 | Fees on registration of Vehicles | | | | √ |
| 3 | Fee for providing sanitary arrangements in places of worship, pilgrimage, fairs and melas | | √ | | √ |
| 4 | Fees on license for mela or fairs | | √ | | √ |
| 5 | Lighting rate/fees | | √ | | √ |
| 6 | Water rate | | √ | | √ |
| 7 | Fee on public hospitals, dispensaries, schools, sarais, markets, rest houses and other public institutions | | | | |
| 8 | Fee on supply, storage and preservation of water for drinking, bathing etc. | | | | |
| 9 | Fee for preservation and reclamation of soil and drainage and reclamation of swamp | | | | |
| 10 | Fees fairs, agricultural shows and industrial exhibitions | | | | |
| 11 | Fee for temporary erection or putting a projection on public street or land | | | √ | |
| 12 | Conservancy fee | | | √ | |
| 13 | Fee on the registration of animals sold | | | √ | |
| 14 | Market fee on persons exposing goods for sale in any market | | | √ | |
| 15 | Fee for use of dharamsalas, rest houses, slaughter house and encamping ground | | | √ | |
| 16 | Fee for drainage | | | √ | |
| 17 | License fee on brokers, commission agent, weighmen or measures practicing their callings | | | | |

Table A.5: Descriptive Statistics of the Variables Used

| Statistics | PCLE | PCST | PCCT | PCOR | PCTR | SFAR |
|--------------------------|----------------|---------|---------|-------|---------|-------|
| | Assam | | | | | |
| Mean | 765.05 | 45.25 | 1047.48 | 20.00 | 1171.00 | 33.91 |
| Median | 781.92 | 35.00 | 1034.75 | 18.50 | 1163.00 | 33.52 |
| Standard Deviation | 45.48 | 26.95 | 63.75 | 9.49 | 47.69 | 1.60 |
| Coefficient of variation | 0.06 | 0.60 | 0.06 | 0.47 | 0.04 | 0.05 |
| | Manipur | | | | | |
| Mean | 1080.54 | 0.00 | 1353.13 | 0.00 | 1610.25 | 9.20 |
| Median | 1141.03 | 0.00 | 1404.45 | 0.00 | 1695.50 | 9.20 |
| Standard Deviation | 483.24 | 0.00 | 569.11 | 0.00 | 584.65 | 0.81 |
| Coefficient of variation | 0.45 | - | 0.42 | - | 0.36 | 0.09 |
| | Sikkim | | | | | |
| Mean | 643.30 | 2752.00 | 943.15 | 2.00 | 1458.00 | 38.97 |
| Median | 637.44 | 2774.50 | 755.30 | 2.00 | 1202.50 | 38.52 |
| Standard Deviation | 66.08 | 669.58 | 536.44 | 2.31 | 630.54 | 6.63 |
| Coefficient of variation | 0.10 | 0.24 | 0.57 | 1.15 | 0.43 | 0.17 |
| | Tripura | | | | | |
| Mean | 1279.82 | 72.50 | 2658.53 | 10.50 | 2759.00 | 15.18 |
| Median | 1178.71 | 68.50 | 2600.85 | 10.50 | 2693.00 | 15.56 |
| Standard Deviation | 434.50 | 9.81 | 598.48 | 5.32 | 619.49 | 2.78 |
| Coefficient of variation | 0.34 | 0.14 | 0.23 | 0.51 | 0.22 | 0.18 |