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Fiscal Federalism in India: A Case for Reassigning of Tax Powers

R. Srinivasan and S. Raja Sethu Durai

Abstract

In an ideal federation, each level of government should have its own revenue resources to sufficiently finance its own expenditures. In most of the federal countries, due to overlapping revenue and expenditure assignments warranted by their constitution, the fiscal balance is elusive. Vertical Fiscal Imbalance (VFI) arises when the own revenue potential of regional governments is inadequate to meet their own expenditure. As noted in the literature, VFI adversely affects the fiscal performance of the regional government. This study examines the VFI for India from 2005 to 2021 and provides evidence that it is raising over the period, and a feasible solution rests in the reassignment of commodity taxation powers to the states.

Keywords: *Fiscal Federalism, Vertical Fiscal Imbalance, Tax Reassignment*

JEL Codes: *H10, H77*

Preface

Madras School of Economics (MSE) established the Centre for Public Finance (CPF), which started functioning from April 1, 2021. This Centre is financed by the Government of Tamil Nadu. Its activities are guided by an Advisory Council (headed by me). The Centre focuses on both theoretical and empirical issues of public finance covering the following areas: deficit financing and public debt, monetary and fiscal interactions, tax policy and reforms, public expenditure management, public investment appraisal and cost benefit analysis, public enterprises reform, intergovernmental transfers, local finances and environmental issues.

Apart from general research activities, the Centre is committed (i) to review the Tamil Nadu Economy and State Finances every year, (ii) to conduct an Annual Conference on topics related to public finance and policy and (iii) to conduct Training Programs on public finance. It will also undertake specific studies on public finance funded by Government of Tamil Nadu and other National and International agencies.

During the academic year 2021-22, the Centre organized "Virtual Meeting on Improving the Presentation of Tamil Nadu Budget Document" on April 29, 2021 and conducted the 5-day Training Programs on Public Finance for (270) 15 batches of Groups A and Group B officials of Government of Tamil Nadu through online mode (from August 31 ,2021 to December 31, 2021). It has also initiated about 10 research studies.

The study " Fiscal Federalism In India: A Case For Reassigning Of Tax Powers" by R. Srinivasan and S. Raja Sethu Durai is a seventh working paper of the Centre for Public Finance. After proving the existence of vertical fiscal imbalance in the Indian federation and showing how it adversely affects the fiscal performance of the regional governments, this study empirically shows that the vertical fiscal imbalance has been increasing over the recent years and suggests that it can be corrected by reassigning the commodity taxation to the states.

C.Rangarajan
Chairman

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R. Srinivasan
S. Raja Sethu Durai

INTRODUCTION

The distribution of spending and revenue powers between two tiers (possibly the third tier as well) of the government is based on the idea of reaping welfare gains by taking the public expenditure decision-making authorities closer to the people while achieving economies of scale in revenue collection. Consequently, the assignment of a greater amount of public expenditure responsibilities to the regional governments and retaining revenue-raising powers with the federal government are evident in the fiscal structure of several federal governments (Eyraud and Lusinyan, 2013). Though all the regional governments are vested with similar revenue powers, the endowment of the revenue base and costs of public services differ between regional governments, thus the variation in fiscal imbalance across regional governments. The financial transfer from the federal to regional governments inevitably and simultaneously addresses two issues – the Vertical Fiscal Imbalance (VFI), that is, inequality in the fiscal imbalance between the federal and regional governments, and the Horizontal Fiscal Imbalance (HFI), that is, the inequality in fiscal balance across regional governments. The financial transfer itself may exasperate the fiscal imbalances of regional governments if it fails to correct both the VFI and HFI (Eyraud and Lusinyan, 2013; Koley and Mandal, 2019).

The theoretical developments influenced the evolution of fiscal federalism in India to a greater extent. For instance, the centralization of revenue powers to reap benefits of economies of scale in revenue collection and decentralization of public expenditure to improve welfare through the provision of regional specific public goods and a constitutional finance commission to decide financial transfers broadly reflect the conclusions of the first generation theories of fiscal federalism like allocation of functions in federal setup and neutrality in transfers including formula-based transfers (Oates, 1972; Musgrave and Musgrave, 1984). Since 2000, we have seen enforcement of fiscal discipline, a legal constraint on borrowings, rationalization of commodity taxation, and pooling all Union taxes into the divisible pool. These aspects also broadly reflect the elements of market-friendly federalism that the second-generation theories prescribe (Oates, 2005).

However, given this context, there are unresolved issues in Indian fiscal federalism. While the VFI could be corrected through a perfect assignment of revenue powers to correspond with the magnitude of expenditure responsibilities of the two tiers of the government (Oates, 2006; IMF, 2009), the HFI should be openly acknowledged and corrected through equalization transfers. With developments in the economy and innovations in tax and expenditure systems, correction in the assignment of revenue powers and expenditure responsibilities is unavoidable, and it is a continuous process in federal countries like India. This paper engages two important issues of fiscal federalism in India. One is whether the VFI can be corrected with the reassignment of tax powers. Two, if the VFI is corrected through tax reassignment, would there be a need only for equalization transfers?

This paper is organized as follows: Section 2 describes the vertical fiscal imbalance in India through various measurements, while Section 3 discusses the possibility of tax reassignment and how it could correct the vertical fiscal imbalance in India. Section 4 analyzes the impact of reassignment on the horizontal fiscal imbalance and the need for equalization transfers, and the final section summarizes and concludes with policy implications.

VERTICAL FISCAL IMBALANCE IN INDIA

The VFI is the fiscal gap arising from the incongruence between revenue powers and expenditure responsibilities in various tiers of a federal government. In other words, VFI is the fiscal gap in the sub-national governments due to improper decentralization of public revenue and expenditure. This asymmetry in revenue and expenditure decentralization is called Vertical Fiscal Asymmetry (VFA). The VFI arising out of VFA is corrected through the financial transfers from the Union to the state governments. Moreover, it is assumed that such transfers should not create any other fiscal effects in the states. In this conception, the VFA is accepted as desirable and inevitable; therefore, the VFI can be called a Vertical Fiscal Gap (VFG) that is filled through financial transfers.

However, the literature points out that financial transfers can create two types of fiscal effects. One is the soft budget constraint. The state's expenditure is partially financed by the federal financial transfers, and that part of the expenditure is not met from the tax price paid by its citizens. When states do not internalize the costs of their public services, so they may not be fiscally prudent (Rodden, 2003). Another fiscal effect is the common resources problem. If the assured federal financial transfers are forthcoming without much effort, the states are enthused to overspend, thus drawing from the common financial resources perpetually (Velasco, 2000). Therefore, the existence of VFI and consequent financial transfers are not considered a fiscally optimal strategy in a federal setup. The solution lies in the reassignment of revenue and expenditure functions between the tiers of a federal government. Whether the transfers create further fiscal effects is an empirical question as much as it is theoretical. However, the VFA is considered undesirable, and reducing VFA is the solution to the problem of VFI. An optimal VFA still leaves some amount of VFA because the federal government may consider ensuring a minimum standard of public services across the country through federal transfers, particularly to address fiscal externalities, income redistribution, and fiscal constraints to maintain macroeconomic stability.

If every tier of government in a federal setup has enough revenue powers to finance its autonomous expenditure, then the VFG is negligible. Such fiscal decentralization makes a government fiscally accountable to its citizens, and the optimal size of government is achievable. VFI arises out of VFA, and VFG arises despite optimal VFA.

VFI is solved through reassignment of revenue powers and expenditure responsibilities, and VFG is filled by federal transfers (Sharma, 2012).

The objective measure of VFI is a tricky one. It is usually measured as the ratio of the state's own revenue to its own expenditure. If this ratio is less than one, the adverse VFI is noted and transfers flow to states. However, the state's own revenue can be less than its revenue potential due to laxity on the part of the state in revenue collection. Equally, the state may also either be efficient in reducing the unit cost of public services or negligent in not providing adequate public services. Here are several alternative measures of VFI, and equally, there are measures of fiscal decentralization, that is, VFA, that can possibly explain the extent of VFI. (Sharma, 2012).

In India, the Union government is endowed with more revenue powers than the expenditure responsibilities it has to discharge, whereas the state governments have fewer revenue powers than the expenditure duties entrusted to them. The fact that the Constitutionally mandated Finance Commission should recommend the states' share in Union government tax revenue is an acknowledgment of VFI in the Indian Federation (Rao and Nirvikar Singh, 2004). They further calculated that the states' own current revenue as a ratio to the country's total current revenue was in the range of 35 percent to 40 percent in the period 1955-56 to 1997-98. During the same period, the ratio of the state's current expenditure to the country's current expenditure was in the range of 55 percent to 60 percent, thus clearly establishing the VFI in Indian Federation. Rao (2000) and Rangarajan and Srivastava (2008) have shown that the states have incurred a disproportionately larger amount of current expenditure than their own tax and non-tax revenues. Suppose we take the current revenues and expenditures of the Union and state governments in the period 2019-22. The current revenues of the states are only 51 percent of the net current revenue of the Union government, while the current expenditure of the states is 115 percent of the current expenditure of the Union government.[1] The share in Union tax revenue and grants from the Union government partially fill the fiscal gap of the states (Rao and Srivastava, 2014).

One of the recent and comprehensive studies on VFI in India was that of Koley and Mandal (2019). This paper directly takes the methodology developed by Eyraud and Lusinyan (2013). While Eyraud and Lusinyan aimed to compare fiscal decentralization and its impact on the fiscal performance of federal countries, their study did not include the impact of VFI in sub-central governments in each federation; whereas Koley and Mandal studied the trend in VFI in India over two and half a decade and its impact on the fiscal performance of states in India. Koley and Mandal used the ratio of the state's own revenue to the state's own expenditure as a measure of VFI and calculated this value for 25 years from 1990-91 to 2015-16. The VFI was as low as 32.69 percent in Haryana to 92.78 percent in Nagaland, but all states' average was 62.83 percent. Since the institutions of revenue powers and expenditure responsibilities are the same for all the states, the difference in fiscal gaps between states should be attributed to other factors that could possibly explain the HFI and not that of VFI. The average VFI for all states remained stable at around 50 percent for non-special category states and 80 percent for special category states. The impact of VFI is seen to be positively correlated with the fiscal deficit of states. However, both VFI and HFI together explain the state's primary deficit.

[1] The financial accounts 2019-20 (accounts), 2020-21 (revised estimate) and 2021-22 (budget estimate) were used for the calculation. The net revenue of the Union government is used in this study which is net of states' share in union taxes from the gross revenue of the Union.

Measuring VFI

If the VFI is construed as an outcome of asymmetry between inadequate own sources of income for meeting expenditures of states, then there are several quantitative measurements of VFI (Kowalik, 2016). Conceptually the revenue not under the control of the state to its total expenditure reflects the extent of fiscal dependence of states on the Union government. Only the Union financial transfers, such as a share in central taxes and all types of grants, shall be considered revenue, not under the control of the state governments. However, including the net borrowings of state government is another option as the quantum of state borrowings is controlled by the Union government. Therefore, these two definitions of the 'revenue not under the control of the state governments' give two different measures of VFI.

Further, the state expenditure shall be defined as the total or only a part of the expenditure that the state governments autonomously decide. To arrive at the autonomous expenditure, we should exclude tied-grants induced expenditure from the total expenditure, whereas the debt-financed expenditure may be retained. Therefore a range of VFI measurements is plausible. However, we take the ratio of own revenue to own expenditure of state governments as the conceptual measure of VFI. Here we use the two ratios from Eyraud and Lusinyan (2013). The first one is:

$$\mathrm{VFI}(1) = 1 - \frac{States'\,Own\ Revenue}{States'\ Own\ Expenditure}$$

Here the states' own revenue is the aggregate revenue of all the states, excluding share in central taxes, grants, and borrowings; the states' own expenditure excludes the expenditure met from the Union government's grants. The state's own revenue includes major revenue sources such as State Excise, Motor Vehicle Tax, Stamp Duty and Registration, and State Goods and Services Tax (SGST) and the compensation for implementation of GST at the state level. Here we consider the GST compensation as the legitimate own revenue of the states in lieu of surrendering state autonomy in commodity taxation.[2] States' own revenue includes non-tax revenue in the revenue account and non-debt capital receipts.

The share in central taxes is to fill the VFI. The grants are tied transfers to induce states to spend on specific public projects. Here the states also have to commit their own revenue for a part of the expenditure on such projects. However, the expenditure equivalent to grants alone is netted out. The borrowings are also tied to the implementation of fiscal policies in order to reduce the deficit, curtail expenditure and raise non-tax revenue. Though borrowings are excluded from states' own revenue, interest payment and debt servicing are not excluded from states' own expenditures as they are contractual payments of the states.

In the second ratio, we bring a slight change to conceive a VFI that reflects the states' own revenue and expenditure autonomously decided by the states. First, the own revenue excludes the State GST (SGST), including compensation. The GST Council decides the SGST and compensation; hence, the states have lost the autonomy to determine this tax-base and tax rates.[3] In the case of states' own expenditure, we exclude 130 percent of grants as expenditure induced by the Union government because the Union government mostly implements programmes with the allocation of grants to states while emphasizing a matching revenue commitment on those projects by the states. Therefore, through the allocation of grants, the expenditure autonomy of states is taken away by more than 100 percent of the grants.

[2] The states were assured to get compensation if the SGST collection fails to increase by 14 per cent every year from July 2017 to June 2022. This compensation is estimated based on the revenue collected by states in 2016-17 from those taxes that were replaced by GST since June 2017.

[3] The Goods and Services Tax (GST) in India is divided into Central GST (50 percent) and State GST (50 percent). A state realizes the SGST revenue when the final destination of retail trade takes place in the states. The tax base and the tax rates are decided by the GST council in which the Union government enjoys 33 percent vote share. But the decision should be passed with 75 percent votes. This gives a lopsided veto for the Union government and consequently the states have lost their autonomy in regard to levy of SGST.

$$\text{VFI}(2) = 1 - \frac{States' Own\ Revenue - SGST\ including\ compensation}{States'\ Own\ Expenditure - grant\ induced\ expenditure}$$

In Table 1, we give both VFI(1) and VFI(2) over the period from 2005-06 to 2021-22. We divide this period into three phases. The first phase is the 13^{th} Finance Commission period from 2005-06 to 2010-11. During this period, all taxes of the Union government were brought into the divisible pool. Further, the states were compelled to implement fiscal responsibility legislation to curtail the fiscal deficit ratio to 3 percent within a specific period to avail grants-in-aid. The second phase is the 14^{th} Finance Commission period from 2011-12 to 2015-16. During this period, the states were asked to continue with fiscal consolidation. Two important changes happened during the third phase, the 15th Finance Commission period of 2016-17 to 2020-21. One the GST was introduced in June 2017. The plan grants and loans were stopped since the planning commission was dissolved in 2015. We have noted the change in VFIs in terms of the two measurements and understand such changes due to alterations in the revenue and expenditure decentralization during these three phases. These two VFIs reflect the level of fiscal dependence of states on the Union government.

Both the measures of VFIs have marginally declined in phase two but only to increase sharply in phase three. The marginal decline in VFIs in phase two despite a steep fall in own tax revenue – GDP ratio was mainly due to a steeper fall in own expenditure-GDP ratio of the states. A further decline in the own revenue –GDP ratio in the third phase further increased states' fiscal dependence though the own expenditure – GDP ratio also declined marginally in this period.

Table 1: Measures of Vertical Fiscal Imbalance in India: 2005-06 to 2020-21

Phases	SOR (Rs in Million Crore)	SOR minus SGST and compensation (Rs in Million crore)	SOE (Rs in Million crore)	SOE minus grant-induced expenditure (Rs in Million crore)	VFI(1)	VFI(2)
I (2005-2010)	2.35 (9.58)	-	4.54 (18.51)	3.60 (14.67)	0.483	0.347
II (2010-2015)	4.20 (8.49)	-	8.06 (16.30)	6.45 (13.05)	0.479	0.350
III (2015-2021)	6.76 (7.61)	4.54 (5.11)	14.40 (16.19)	11.17 (12.56)	0.530	0.594

Note: 1. Figures in Parentheses are the percent of GDP.
2. Calculated based on data from State Finance Statistics, RBI.

If we compare the difference between VFI(1) and VFI(2), where VFI(2) represents the greater degree of fiscal autonomy, in the first two phases, VFI(2) is less than VFI(1). The decline in the fiscal dependence of states by the measure VFI(2) indicates the autonomous expenditure of states is reduced by the grant-induced expenditure of states. The VFIs of phase three should be analyzed differently because the VFI(2) has changed in both numerator and denominator. The VFI(2) is greater than VFI(1) in phase three mainly because the revenue autonomy of states is reduced by SGST and its compensation. However, the fiscal dependence of states increased over these three phases, particularly in the last phase, mainly due to the introduction of GST.

An Alternative Measure of VFI

An alternative formula to measure VFI given by Eyraud and Lusinyan (2013) is:

$$\boldsymbol{VFI(3) = 1 - \frac{Revenue\ Decentralization}{Expenditure\ Decentralization}\ X\ (1 - Centre's\ Deficit)}$$

$$Revenue\ Decentralization = \frac{State's\ Own\ Revenue}{Centre's\ Revenue}$$

$$Expenditure\ Decentralization = \frac{State's\ Own\ Expenditure}{Centre's\ Expenditure}$$

$$Centre's\ Deficit = \frac{Centre's\ Expenditure - Centre's\ Revenue}{Centre's\ Expenditure}$$

This measure helps evaluate the impact of revenue and expenditure decentralization on VFI. However, this formula will also give the same measure of VFI as in the previous formula. In VFI(3), the state's own revenue and expenditure are defined as they are defined in VFI(1). Similarly, we have defined the own revenue by excluding SGST and compensation and own expenditure by reducing 130 percent of grant-induced expenditure. Using these adjusted measures, we constructed VFI(4).

The measures of VFI as per VFI (3) and VFI (4) over the three phases are given in Tables 2 and 3. The values of VFI(3) and VFI(4) are the same as those of VFI(1) and VFI(2). In both Tables 2 and 3, we can find that the indices of expenditure decentralization are higher than the indices of revenue decentralization. In other words, expenditure decentralization is higher than revenue decentralization. Moreover, expenditure decentralization increased faster than the increase in revenue decentralization. This is the main reason that gives rise to a higher level of VFI in the 15th FC period compared to the 14th FC period. Further, there was a marginal decline in VFI in the 14th FC period compared to the 13th FC period because the relative increase in revenue decentralization is higher than the increase in expenditure between the two periods.

Table 2: Alternative Measure of Vertical Fiscal Imbalance (VFI-3) in India: 2005-06 to 2020-21

Phases	SOE (Rs Million Crore)	SOR (Rs Million Crore)	Union Expenditure (Rs Million Crore)	Union Revenue (Rs Million Crore)	Union Govt Deficit	Exp Dec	Rev Dec	VFI (3)
I (2005-2010)	4.53	2.35	4.91	4.90	0.001	0.925	0.479	0.483
II (2010-2015)	8.06	4.20	7.73	7.72	0.001	1.043	0.543	0.479
III (2015-2021)	14.40	6.76	12.57	12.59	0.001	1.146	0.537	0.530

Source: Author's calculation based on data from State Finance Statistics, RBI.

Table 3: Alternative Measure of Vertical Fiscal Imbalance (VFI-4) in India: 2005-06 to 2020-21

Phases	SOE – 130 percent Grant (Rs Million Crore)	SOR – (SGST + Compensation) (Rs Million Crore)	Union Expenditure (Rs Million Crore)	Union Revenue (Rs Million Crore)	Union Govt Deficit	Exp Dec	Rev Dec	VFI (4)
I (2005-2010)	3.60	2.35	4.91	4.90	0.001	0.733	0.479	0.347
II (2010-2015)	6.45	4.20	7.73	7.72	0.001	0.834	0.543	0.350
III (2015-2021)	11.17	4.54	12.57	12.59	0.001	0.889	0.361	0.594

Source: Author's calculation based on data from State Finance Statistics, RBI.

If we compare the values of VFI between Tables 2 and 3, the values of VFI in Table 3 in the first two periods are lower than the corresponding values in Table 2. As stated earlier, it is because of the change in the definitions of own expenditure and revenue. However, the VFI in Table 3 is higher than in Table 2 for the third period because a major part of commodity taxation has been brought under GST, and that part is not recognized as the state's own revenue. Obviously, the revenue decentralization measure in this period is far less than in the previous two periods in Table 3. It has been noted by almost all scholars since

1950 that the states are burdened with higher expenditure responsibility and endowed with a lower amount of revenue potential and hence the higher level of VFI.

REASSIGNING TAX POWERS AND VFI

One of the possible solutions discussed in the literature to correct fiscal imbalances, particularly the VFI, is an appropriate restructuring of intergovernmental transfers and reassigning tax powers (Ruggeri *et. al.*, 1993). Indeed they argued a case for Canada to bring in fiscal balance in the long run by transferring the personal income tax to the provinces and looked at the issue of VFI in a dynamic setting. They argue that the fiscal imbalance is an outcome of the dynamic interaction between the fiscal institutions of the federal and regional governments, noting that *"(The) VFI involves a comparison of the dynamic properties of the basic structures upon which the fiscal system of different orders of government rest."* Before we analyze this issue, let us explore the possibility of tax reassignment in the Indian Federation.

The rationale for assigning tax powers between the federal and regional governments is conceptualized differently in first and second-generation theories of fiscal federalism. Accepting Musgrave's division of functions in a federation, the regional governments have to take up allocative functions of the State. Therefore, the fiscal policies, including taxation relating to stabilization and redistributive functions, should be with the federal government, and the taxes that align with the allocative function should be with the regional governments. This argument of the First Generation Theory of Fiscal Federalism, if extended to the types of taxes, broadly, the regional governments should levy only such taxes that could keep the distribution of income intact and that such taxes have little destabilization effect on the national economy. Benefit taxes, like user charges, satisfy these principles; however, the benefit tax system breaks down without perfect knowledge about peoples' preferences for public goods.

The non-benefit taxes will create an income redistribution effect that has to be compensated by the federal transfers. Instead, there is little difference between non-benefit tax and untied federal grants as sources of revenue to the regional governments if they are committed to welfare-maximizing public spending. Therefore the First Generation Theories have little to offer for designing tax assignments in a federal system. The local and historical conditions should guide the tax assignments between governments in a federation.

The Second Generation Theories of Fiscal Federalism is based on the fundamental premise that the political economy of tax assignment should ensure preference matching and accountability of the regional governments. With democracy, the regional governments shall levy taxes reflecting the preferences of the local population and be accountable to them. Another important aspect of the Second Generation Theories is that the regional taxes should preserve the market functioning. Regional taxes should not distort the market, and regional governments should not indulge in tax exportation. Ensuring market preserving tax system amounts to a minimum tax that disciplines excessive abuse of the public sector. Obviously, these principles direct us to consider only taxes with restricted bases in the local region and that harmonizing the tax system across the regional governments is essential to ensure free trade and not to distort the federal market. Therefore, even the Second Generation Theories of Fiscal Federalism gives principles that do not clearly demarcate the tax powers between the federal and regional governments. But the principles of localized and harmonized taxes that do not distort markets automatically ensure minimum government. Therefore the tax assignment as per both the first and second-generation theories of fiscal federalism allows experimentation in tax assignment that suits the specific federations as long as such experiments are aimed at attaining the market preserving minimum government.

Given these theoretical considerations, we argue that the entire commodity taxation, except the customs duty, be assigned to the states in India. The argument is based on the fact that the commodity tax base is already taxed by both the Union and state governments. The Union government has exclusive power to levy excise duty on petroleum products, and the states have exclusive power to levy excise duty and sales tax on liquor. All other commodities suffer the harmonized Goods and Services Tax (GST), which is concurrently levied by both Union and state governments equally. The entire commodity tax base, except liquor, is being concurrently exploited by the Union and state governments; reassignment of entire commodity taxation, including excise on petroleum products and CGST to states, will not adversely affect the market. At the same time, it will ensure enough own revenue for the states to meet their assigned expenditure responsibilities and make the states accountable to the local population.

This reassignment should be conceived as follows. One, we should bring all commodities, including petroleum products, under the GST. Two, the Union government should continue to collect IGST only to settle revenue on destination basis. This will ensure smooth harmonization of GST across states as well as zero-rating GST on inter-state trade. The GST shall continue as a tax determined by the GST Council. However, the veto power of the Union government should be removed. Then the GST Council shall truly become a tax decided by the states themselves, with the Union government facilitating the arrival of consensus among the states on tax issues. This may once again require some constitutional amendments. The commodity taxation in its entirety should be moved to the State List III of the Seventh Schedule of the Constitution of India, with a rider that harmonization of the commodity taxation should be maintained.

Moreover, the assignment of excise duty to states will hasten the process of integrating taxes on petroleum products into the GST. Since the tax proceeds will be distributed based on states' consumption, the efficiency of tax collection and the structure and size of the economy will decide the tax collection in each state. Thus there can be little disagreement on this reassignment of commodity taxes to states. The gross tax revenue after the integration of excise duty on petroleum products will be less than what is being collected now because the cesses and surcharges of the Union government will be removed. The positive aspect of this reassignment of tax shall be the increase in own tax revenue of the states. This will also improve the accountability of states to their people on fiscal matters. However, the ultimate differences in the revenue distribution between the states will largely differ between the existing tax assignment scheme and the reassignment, as suggested.

In addition to reassigning all the commodity taxation power to the states, we suggest another simple rule for an effective equalization transfer that simultaneously addresses the problem of VFI and HFI. A proportion of the revenue surplus[4] of the Union government after reassignment as equalization transfer can be shared with the states equivalent to their contribution to the national income, bringing in a significant reduction in VFI and HFI. It also acts as an effective mechanism for the states to increase their Gross State Domestic Product (GSDP).

Impact of Reassignment of Commodity Taxes to States

The impact of the proposal mentioned above on the dynamic vertical fiscal imbalance is examined. We conceive the impact of reassignment of commodity taxes to states on the revenues and expenditures of Union and state governments as given below:

[4] The proportion can be determined dynamically by the Union government to bring a balance in the state budgets every year considering their revenue requirements. For calculations we used 75 percent.

1. Revenue of Union Government after reassignment = Gross Tax Revenue of Union government – excise duty with cess and surcharges – CGST – IGST.

   After reassigning all commodity taxes to states, we assume that the states have no claim on share in central taxes because the tax powers are adequate to meet their expenditure responsibilities. Therefore, we consider gross tax revenue net of excise duty with cess and surcharges, CGST, and IGST.

2. Expenditure of Union Government after reassignment = Total expenditure – untied and tied grants to states.

   The Union has no obligation to make transfers to all states as the Vertical Fiscal Imbalances are corrected through the reassignment of taxes. Therefore we start with the ideal situation where no effective grants exist for all states. However, there is still a need for equalization grants which can be separately considered.

3. Own Revenue of state governments = own revenue of states + excise duty of Union government net of cess and surcharges + CGST + IGST.

   The own revenue of state governments is the aggregation of existing own revenue plus excise duty net of cess and charge because we expect the petroleum products to be brought under GST.

4. Expenditure of state government = expenditures of states – 130 percent of grants.

   Since, in principle, all the state governments are not expected to receive any grants, and because of matching grants received till now, we deduct 130 percent of expenditures induced by grants.

Table 4 gives the VFI after the suggested proposal of reassignment of commodity taxation to states. The table shows that both the Union and the State governments have a revenue surplus, and VFI is close to zero. Comparing it to the existing system and the VFI reported in tables 2 and 3, the proposed tax reassignment scheme suggested in this study shows a revenue surplus for both the Union and the State governments and a drastic fall in the VFI.

Table 4: Vertical Fiscal Imbalance after Reassignment: 2005-06 to 2020-21

Phases	SOE (Rs Million Crore)	SOR (Rs Million Crore)	Union Expenditure (Rs Million Crore)	Union Revenue (Rs Million Crore)	Union Govt Deficit	Exp Dec	Rev Dec	VFI
I (2005-2010)	3.60	3.8	4.18	4.52	-0.081	0.861	0.841	0.026
II (2010-2015)	6.45	6.71	6.49	7.12	-0.097	0.994	0.942	0.057
III (2015-2021)	11.17	12.33	10.08	11.18	-0.109	1.108	1.103	0.005

Source: Author's calculation based on data from State Finance Statistics, Handbook of Statistics on Indian Economy, RBI.

Coming back to the arrangement of Ruggeri *et. al.* (1993) about the dynamic aspects of fiscal federalism, we derived the aggregate revenue and expenditure elasticity for Union and State governments[5]. The difference in these elasticities is called structural imbalance in a government, and the difference in the structural imbalances between Union and state governments is defined as a dynamic vertical fiscal imbalance. The focus here is to compare the structural imbalances measured as the difference between the income elasticities of revenue and expenditure of two tiers of government in the federal system. The

[5] Estimated as β coefficient from the regression of the form Log Y = α + β Log X +e, where Y is Revenue or Expenditure of the Union or the State government and X is the National GDP. The estimation is carried out for the data from 2005-06 to 2020-21.

dynamism in the structural imbalance of each level of the government is the most suitable approach to understand the evolving VFI in the Indian federation, given the political dynamics in India. Notably, the interaction between the fiscal policies and the resultant fiscal behavioral changes of the Union and State governments are important determinants of the dynamic VFI. An ideal reassignment should bring the structural imbalance closer to zero for both governments.

Table 5 shows the elasticities and structural imbalances in the existing system as well as after the reassignment, as suggested above. As per the estimates in the present system, the Union and the State government have a negative structural imbalance indicating deficits and a dynamic vertical imbalance value at 0.067. These deficits can be reduced by rationalizing the expenditures of both the governments by removing the grants to the states from the Union expenditure, and an equivalent of 130 percent of that is excluded from the state's expenditure. In this arrangement, the Union government's expenditure elasticity (0.931) improves the structural imbalance and becomes a positive value. Still, the state government's expenditure elasticity (1.101) provides an improvement in the structural imbalance but not to the extent of a positive value.

Further rationalizing state expenditure must bring its structural imbalance to zero or a positive value. It can be achieved in two ways. First, the statutory grants from the Union government are generally aimed at filling the fiscal gap of the states, thus incentivizing the states to sustain the fiscal gap, so in the absence of a gap-filling grant, this fiscal gap will be vastly reduced. Second, if the reassignment of taxes improves the states' revenue capacity, they are accountable for their fiscal prolificacy. So there will be an intention to reduce the structural imbalance. The reassignment of entire commodity taxes to states and a proportion of the Union government's revenue surplus distributed as per the shares of each state to national income can bring structural balance to a positive value and the dynamic vertical fiscal imbalance close to zero.

Table 5: Vertical Fiscal Imbalance before and after Reassignment

Description	Estimates in the present system	Estimates after suggested reassignment
Union Government		
Aggregate Revenue Elasticity	0.964	0.951
Aggregate Expenditure Elasticity	0.972	0.931
Structural Imbalance	-0.008	0.020
State Government		
Aggregate Revenue Elasticity	1.042	1.112
Aggregate Expenditure Elasticity	1.117	1.101
Structural Imbalance	-0.075	0.011
Dynamic Vertical Fiscal Imbalance	**0.067**	**0.009**

Source: Authors calculation.

EFFECTS OF REASSIGNMENT ON HORIZONTAL FISCAL IMBALANCE

Reassignment of commodity taxes to states might impact the Horizontal Fiscal Imbalance (HFI), which measures the disparity in fiscal capacity and effort across the states. This is measured by the coefficient of variation in own revenue as a percentage of GSDP of the states for 2019-20. Table 6 provides the change in HFI before and after reassignment. The coefficient of variation of own tax-GSDP ratios is reduced from 0.27 in the present system to 0.19 after the suggested reassignment.

Table 6: Horizontal Fiscal Imbalance before and after Reassignment -2019-20

State	Own Revenue / GSDP (Percent)	Own Revenue / GSDP After reassignment (Percent)
Andhra Pradesh	6.3	11.3
Arunachal Pradesh	6.7	21.3
Assam	6.6	12.8
Bihar	5.7	13.3
Chhattisgarh	8.7	14.7
Goa	9.9	15.3
Gujarat	6.0	10.5
Haryana	6.4	10.8
Himachal Pradesh	6.2	11.3
Jammu and Kashmir	8.1	13.5
Jharkhand	7.9	14.2
Karnataka	6.8	11.5
Kerala	7.3	12.1
Madhya Pradesh	7.1	12.9
Maharashtra	7.2	11.7
Manipur	4.2	12.5
Meghalaya	7.0	15.1
Mizoram	5.0	13.0
Nagaland	4.4	12.1
NCT Delhi	4.5	8.6
Odisha	8.6	14.5
Puducherry	10.8	14.9
Punjab	6.8	11.5
Rajasthan	7.5	12.8
Sikkim	5.4	11.9
Tamil Nadu	6.7	11.3
Telangana	7.8	12.5
Tripura	4.2	10.8
Uttar Pradesh	12.1	18.5
Uttarakhand	6.1	11.1
West Bengal	5.3	10.7
Coefficient of Variation	**0.27**	**0.19**

Source: Author's calculation based on data from State Finance Statistics and Handbook of Statistics on Indian States- RBI.

Let us look at the disaggregated data of states' own tax – GDP ratios before and after the tax reassignment in Table 6. All the smaller states, which are essentially not exporting states, have shown a substantial increase in their own tax-GSDP ratio compared to larger, industrialized, and exporting states. Therefore, it is clear that the reassignment of consumption-based commodity taxation to states brings in greater equity in states' own revenue mobilization if the larger states improve their tax efforts and should do so. Therefore, there will be little need for grants to equalize the own revenue capacity of states.

We know the fact that indicators of literacy, public health, and infrastructure facilities vary even among states that are otherwise equal in terms of the level of development measured by GDP. It has been amply documented in various human development reports in India and state human development reports. Therefore, to ensure minimum standards of delivery of public utilities across all states, some amount of tied grants for specific purposes will still be essential.

SUMMARY AND CONCLUSION

The inevitable VFI and HFI exist in the Indian federation as in most other federations. The instruments of federal transfers in terms of share in central tax revenues and statutory and discretionary grants, which may be tied or untied, have been used to fill the fiscal gap and to incentivize states to expend as per the priorities of the Union government. This has to some extent, preempted the states from prioritizing their own expenditures. The hard budget constraint fixing targets for revenue and fiscal deficits through fiscal legislation is also in place. However, correcting the vertical and horizontal fiscal imbalances by matching the own revenues of the states with their own expenditure responsibilities is an ideal approach that every federation would like to achieve. We have traced the increase in VFI in the Indian federation over the recent decades through the acknowledged objective measures in the literature. We have also shown that the VFI can be corrected by reassigning the entire commodity taxation to states, that is, transferring excise duty on petroleum products and CGST and IGST from the Union government to state governments.

Consequently, the tax reassignment would correct the VFI and avoid distributing shares in central taxes to states. The reassignment of commodity taxes to states would solve the contentious issue of bringing petroleum products under GST. Further, the estimates based on historical data show that the reassignment of commodity taxes to states improves the tax – GSDP of smaller states and brings their tax revenue capacity equal to more than that of the larger states. However, the need for equalization transfers cannot be wished away, given the differences in the level and structure of development of states. Therefore equalization transfers should be effected, and that should be based on revenue needs to ensure minimum standards of delivering public utilities across states.

REFERENCES

Eyraud, Luc and Lusine Lusinyan (2013), "Vertical Fiscal Imbalances and Fiscal Performance in Advanced Economies", *Journal of Monetary Economics*, 60, 571-587.

International Monetary Fund (IMF) (2009), Report on Macro Policy Lessons for a Sound Design of Fiscal Decentralization, https://www.imf.org/external/np/pp/eng/2009/072709.pdf

Koley, M. and Kumarjit Mandal (2019), "Vertical Fiscal Imbalances and Its Impact on Fiscal Performance: A Case for Indian States", in S Bandyopadhyay and M Dutta (eds), Opportunities and Challenges in Development, Springer, Singapore.

Kowalik, P. (2016), "Measurement of Vertical Fiscal Imbalance in Germany," *Argumenta Oeconomica*, 37 (2), 131-146.

Musgrave, Richard A. and Peggy B. Musgrave (1984), *Public Finance in Theory and Practice*, San Francisco: McGraw-Hill.

Oates, Wallace E. (1972), *Fiscal Federalism*, New York, N.Y.: Harcourt Brace Jovanovich Inc.

Oates, Wallace E. (2005), "Towards a Second-Generation Theory of Fiscal Federalism", *International Tax and Public Finance*, 12(4), 349-73.

Oates, Wallace E. (2006), "On the Theory and Practice of Fiscal Decentralization", *IFIR Working Paper No. 2006-05*.

Rangarajan, C. and D.K. Srivastava (2008), *Reforming India's Fiscal Transfer System: Resolving Vertical and Horizontal Imbalances*, Madras School of Economics, Working Paper 31/2008, India.

Rao, C.B. and D.K. Srivastava (2014), *Dependence of States on Central Transfers: State-wise Analysis*. NIPFP Working Paper No.2014-137. National Institute of Public Finance and Policy, New Delhi.

Rao, M.G. (2000), *Fiscal Decentralization in Indian Federalism*, Retrieved from http://www.imf.org/external/pubs/ft/seminar/2000/fiscal/rao.pdf.

Rao, M. Govinda and Nirvikar Singh (2004), *The Political Economy of India's Federal System and its Reform*, Economics Department Working Paper, No.566, University of California Santa Cruz.

Rodden, Jonathan (2003), "Federalism and Bailouts in Brazil", Chapter in Jonathan Rodden, Gunnar S. Eskeland, and Jennie Litvack edited *Fiscal Decentralization and the Challenge of Hard Budget Constraints*, MIT Press, Cambridge, Massachusetts

Ruggeri, G. C., D. Van Wart, G. K. Robertson, and R. Howard (1993), "Vertical Fiscal Imbalance and the Reallocation of Tax Fields in Canada", *Canadian Public Policy*, XIX(2), 194-215.

Sharma, C.K. (2012), Beyond Gaps and Imbalances: Restructuring the Debate on Intergovernmental Fiscal Relations, *Public Administration*, 90(1), 99–128.

Velasco, Andres (2000), "Debts and Deficits with Fragmented Fiscal Policymaking", *Journal of Public Economics*, 76 (1), 105-125.

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