# Fifteenth Finance Commission and Fiscal Autonomy of States in India

## Animesh Pareek

Indian Institute of Public Administration, New Delhi

#### Pradeep Kumar Panda

Indian Institute of Public Administration, New Delhi

## Abstract

The XVFC, appointed on 27th November 2017 under the chairmanship of N.K. Singh, has recommended maintaining the vertical devolution at 41%. The recommendations of the XVFC will confer more fiscal autonomy to union as well as states on the revenue and the expenditure fronts, as the total transfers (devolution and grants) add up to around 34% of estimated Gross Revenue Receipts to the Union. Besides the several categories under which it happens, what makes fund transfer far more complex is that certain funds lie between being entirely tied and entirely untied. However, the future contours of the vertical devolution of resources between the Union and the States is to share gross revenue receipts similarly in about equal ratio between the Union and States, while assuming no further decline in the divisible pool as a proportion of gross revenue receipts. This balance has been achieved through 41% of the divisible pool being devolved to the twenty-eight States and the balance devolution taking place through various forms of Finance Commission and non-Finance Commission transfer mechanisms. In absolute terms, for the period 2021-26, the states will get a total of Rs.42.2 lakh crore in tax devolution (Including total grants of Rs 10.33 lakh crore). The cumulative transfers to States are estimated to remain at around 50.9% of the divisible pool during same period. The XVFC outlined a very comprehensive assessment of the revenue and expenditure of States and the Union. An increase in the overall share will give more freedom to States and Local Governments. With many taxes subsumed under it, GST accounts for 35% of the gross tax revenue of the Union and 44% of own tax revenue of the States. XVFC recommended non-financial recommendations for promoting cooperative fiscal federalism.

Keywords: Finance Commission, Fiscal Autonomy, Federalism, Devolution, Growth, Deficit, India

*"There is and there can be no final solution to the allocation of financial resources in a federal system"* 

- Prof. Maxwell

#### I. Introduction

The Union Finance Commission is a Constitutional body formulated under Article 280 of the Constitution. It is constituted every 5 years by the President to review the state of finances of the Union and the States and suggest measures for maintaining a stable and sustainable fiscal environment. It also makes recommendations regarding the devolution of taxes between the Center and the States from the divisible pool which includes all central taxes excluding surcharges and cess which the Centre is constitutionally mandated to share with the States. The Fifteenth Finance Commission (XVFC) was appointed on 27<sup>th</sup> November 2017 under the chairmanship of Shri N.K. Singh. In addition to the primary objectives mentioned above, the terms of reference for the commission sought suggestions regarding the principles which would

govern the quantum and distribution of grants-in-aid (nonplan grants to states), the measures, if needed, to augment State government finances to supplement the resources of local government and to review the state of the finances, deficit and debt conditions at different levels of government. In addition to the primary objectives mentioned above, the terms of reference for the commission sought suggestions regarding the principles which would govern the quantum and distribution of grants-in-aid (non plan grants to states), the measures, if needed, to augment State government finances to supplement the resources of local government and to review the state of the finances, deficit and debt conditions at different levels of government. Shri Shaktikanta Das, former Secretary to the Government of India and Prof. Anoop Singh, Adjunct Professor, Georgetown University were appointed full time Members. Dr. Ashok Lahiri and Dr. Ramesh Chand were appointed as part-time Members. Shri Arvind Mehta was appointed as Secretary to the Commission. Shri Ajay Narayan Jha, former Finance Secretary, Government of India, was later appointed as Member with effect from 1 March 2019 in place of Shri Shaktikanta Das. Over the course of the Commission's tenure, this and other changes in membership were subsequently notified by President's Order. In the late 1990's India's States were facing sharp fiscal deterioration. The problem was particularly serious in the poorer States. A slow deterioration in fiscal performance over the 1980s and 1990s was culminated into a Statelevelfiscal crisis by the late 1990's. Almost all the States had to revise thesalaries of their employees as they were under the tremendous pressure to do soafter the Central government, implementing the recommendations of Fifth Central Pay Commission, hiked the salaries of its employees in 1998. Unlike the Central government, State governments' fiscal performance did not showany improvement in the first half of 1990s, and their deterioration in the second half has been rather sharp. In a fiscal federalism crises at one level of government are bound tospillover. So far as the fiscal imbalances are concerned, which continued tilltoday, had appeared in the Central government's budget in the form of deficitin its revenue account in 1979-80. States' revenue account experienced thesame in the latter half of the 1980's. Warnings about the sustainability of fiscalstance and the impending crises started appearing in academic and professional circles since around mid-1980's (Mundle and Rao, 1992).

But the entire literature on Indian Public Finance remained focused on the fiscal crises faced by Centralgovernment. State government finances, though, started showing deteriorationremained largely neglected. Even when the crises situation forced Governmentof India to undertake economic reforms, which included fiscal discipline, noserious beginning was made for such at the State level. The point largelymissed by the government and academics alike was that reforms would notsucceed unless undertaken simultaneously at both the levels. In a fiscal federalism Centre and States are not the watertight compartments and therefore he Center cannot remain insulated from the happenings at the State levels. So, the analytical framework and the logic employed to study the Centralgovernment finances are equally applicable for so at the State level. India's fiscal federal system has served the country well, and hasbrought stability over an extended period of time. But with the growing fiscal stress, and divergence in performance, the system itself came under scrutiny ifit was responsible for the imbalances in the State finances. Therefore, theliterature scanned for the purpose of present study can be classified into three categories: 1. The theoretical framework (or in other words, the economics of deficits). 2. The theoretical and the empirical studies on fiscal federalism.3. Analytical studies on the fiscal imbalances in the Central and in the Stategovernment's finances.

Since the publication of the monumental work of Musgrave (1959) where he explained the fiscal functions of allocation, distribution and stabilization to be performed by the government in accordance with theobjectives of the economic efficiency and social optimality, a plenty ofliterature has been produced on the question how these functions are best performed in a federal country. How should the various layers of governmentbe assigned various responsibilities and tax jurisdictions? What principlesshould govern the formation of federalism and how such federalism should be geared to realise social, economic and political objectives, is the subject mattersuch studies. There appears to be a consensus on the preposition that the primary responsibility for macroeconomic stabilisation policies and for the redistribution of income and wealth must be of the Central government, whilethe subnational governments can be entrusted with the large part of allocation as the decentralised provision of public goods can cater to the local demandsmore efficiently

Oates (1977) provided an overview of economics of fiscalfederalism. He tried to work out the implications of the basic principle for theefficient functioning of a multilevel public sector. Such approach seems togenerate an insight which is useful for the analysis of budgetary policy of thegovernment. But he cautions that it is difficult for such analytical tools tocapture all the aspects of fiscal programs like revenue sharing. Moreover the economic logic often militates against social objectives. But despite all itslimitations it often reveals certain basic tendencies in the system with whichpublic policy must come to terms irrespective of its goals. Garg (2006) found that the ever increasing financingof State sector's subject which has proliferated over the years, affect theautonomy and the responsibility as it has generally transcended the States'jurisdiction. Such instrument of financing is used by the Centre to influenceStates' policies. Bypassing the States' budget in some of the transfer, meant forlocal bodies has been found to be a significant irritant. He suggested majorprocedural changes in the disbursement of grants under Centrally SponsoredSchemes to minimize the element of discretion.

Heredia and Rider (2005) found that the high transferdependency of the States has weakened accountability and fiscal discipline. The transfer system is also found to be complex and less transparent. Further, the lack of coordination among the institutions responsible for the transfers, produce distorting incentives. To address the problem of perverse incentives structural changes in the system of transfers are required.

Chakraborty (1998) analysed the relative importance of the various components of resource transfers from the Center to the States and came out with the conclusion that Center-State financial relations as they have evolved over the years have failed to reduce the vertical imbalance. The continuous decline of own revenue as a percentage of States' revenue expenditure could be another indicator of vertical imbalance.

Singh (2004) argued that reducing the channels ofintergovernmental transfers, would help in achieving objectives of horizontalequity as well as managing political challenges arising from increased regionalinequality within the federation. Effective decentralisation seems critical, in hisopinion, to improve the efficiency of government delivery of local publicgoods and services, particularly those that improve human capabilities. Thus, improvements in India's IGFT must include reforming the system of tax and expenditure assignments.

## II. Objective, Data and Methodology of the Study

The objective of the present study is to:

- i. Outline major recommendations of XVFC;
- ii. Assess fiscal autonomy of states of India in light of recommendations of XVFC;

Data was collected from various Finance Commission reports and publications Ministry of Finance, Government of India. The study gives review of existing literature review.

## III. Assessment of XVFC's Recommendation

The XVFChas recommended maintaining the vertical devolution at 41% – the same as in its interim report for

2020-21. It is at the same level of 42% of the divisible pool as recommended by the 14<sup>th</sup> Finance Commission. It has made the required adjustment of 1% due to the changed status of the erstwhile State of Jammu and Kashmir into the new UT of Ladakh and Jammu and Kashmir. This has been projected as a big boost to fiscal autonomy of states, marking a historical shift in the financial relations between the Centre and states. The analysis shows that while there has been a sharp jump in the ratio of unconditional transfers to states, it still falls short of what it was a decade ago. The fund transfers from Union to state governments are either tied (conditional) or untied (unconditional). Tied transfers indicate that the Union government exercises tight control over how these funds are used by the states, whereas untied funds can be used by the state government as it deems fit. It is because the XVFC has recommended an increase in the share of untied funds, that its decision has been welcomed.

Table 1: Global Sharing for Vertical Fiscal Balance

Finance Commission	Percentage Share Recommended
X FC	29
XI FC	30.5
XII FC	31.5
XIII FC	32
XIV FC	42
XV FC	41

Besides the several categories under which it happens, what makes fund transfer far more complex is that certain funds lie between being entirely tied and entirely untied. However, for the sake of this analysis, the funds have been considered as either wholly tied or wholly untied. The famous figure of 41%, which has caught everyone's attention, refers to the share of states in the 'divisible pool' of Union taxes. The divisible pool is the part of Union taxes that has to be shared with the states. The XVFC has recommended to provide Rs 2.9 trillion as revenue deficit grants to 17 states during 2021-26. These grants will be unconditional and 70% of the grants will be distributed to states during 2021-22 and 2022-23. These grants will help the recipient states to recover from damage caused to tax revenue due to pandemic. With many taxes subsumed under it, GST accounts for 35 per cent of the gross tax revenue of the Union and 44% of own tax revenue of the States. With gross tax revenue of the Union determining the divisible pool of taxes and, hence, transfers from the Union to the States, and changes in States' own taxes affecting their resource requirements, GST has become a critical factor in Indian federal finance. The recommendations

of the XVFC will confer more fiscal autonomy to union as well as states on the revenue and the expenditure fronts, as the total transfers (devolution and grants) add up to 34% of estimated Gross Revenue Receipts to the Union. Besides the several categories under which it happens, what makes fund transfer far more complex is that certain funds lie between being entirely tied and entirely untied. However, the future contours of the vertical devolution of resources between the Union and the States is to share gross revenue receipts similarly in about equal ratio between the Union and States, while assuming no further decline in the divisible pool as a proportion of gross revenue receipts. This balance has been achieved through 41% of the divisible pool being devolved to the twenty-eight States and the balance devolution taking place through various forms of FC and non-FC transfer mechanisms. In absolute terms, for the period 2021-26, the states will get a total of Rs. 42.2 lakh crore in tax devolution (Including total grants of Rs 10.33 lakh crore). The cumulative transfers to States are estimated to remain at 51% of the divisible pool during same period.

The XVFC has recommended that the normal limit for net borrowings of state governments be fixed at 4% of GSDP in 2021-22, in line with the enhanced baseline borrowing limit for the year. This will ease to 3.5% by 2022-23, thereafter reverting to the erstwhile 3% limit till 2025-26. The additional borrowing space of 0.5% of GSDP for states is conditional on the completion of power sector reforms. This is, however, lower than the 1% limit permitted by the Union for 2020-21 that was linked to a set of four reforms.

The devolution by the XVFC will benefit states like Bihar, MP, Maharashtra, Rajasthan and West Bengal the most, according to the survey. Most of the states like Goa, Haryana, Himachal Pradesh, MP, Odisha, Tamil Nadu, UP and West Bengal have no significant change in the total divisible pool, whereas, Bihar, Chhattisgarh, Maharashtra and all the northeastern states except Assam have benefitted from the change in the devolution formula which now gives greater weight to state's forest and ecology, demographic performance and tax effort, the report pointed out. The net result of the change in criteria is that the share of ten states in the divisible pool has declined during its award period, relative to the previous commission's period. Almost all the southern states barring Tamil Nadu have emerged as the biggest losers from distribution of taxes. Karnataka is the biggest loser, while Maharashtra is the biggest gainer.

## Table 2: Total Grants to States

Туре	Amount (Rs. Crores)		
Local Bodies	436361		
Disaster Management	122601		
Post-Devolution Revenue Deficit	294514		
Sector-specific	129987		
State-specific	49599		
Total	1033062		

Though use of dated population data is unfair, the XVFC agreed that the Census 2011 population data better represents the present need of States, to be fair to, as well as reward, the States which have done better on the demographic front, XVFC has assigned a 12.5% weight to the demographic performance criterion.XVFC has re-introduced tax effort criterion to reward fiscal performance. The XVFC has maintained a moderate weight of 15% for the area criterion in consonance with the approach of FC-XIV. XVFC believed that large forest cover provides huge ecological benefits, but there is also an opportunity cost in terms of area not available for other economic activities and this also serves as an important indicator of fiscal disability. XVFC have assigned 10% weight to the forest and ecology. The increase in weight is also recognition of forests, a global public good, as a resource that ought to be preserved and expanded through afforestation of degraded and open forests for national benefit as well as to meet our international commitments.XVFC have decided to revert to the method of representing fiscal capacity in terms of income distance and assigned it 45% weight. XIVFC recommended that the local bodies should be required to spend the grants only on the basic services within the functions assigned to them under relevant legislations. XIVFC recommended that the books of accounts prepared by the local bodies should distinctly capture income on account of own taxes and non-taxes, assigned taxes, devolution and grants from the State, grants from the Finance Commission and grants for any agency functions assigned by the Union and State Governments. XIVFC recommended distribution of grants to the States using 2011 population data with weight of 90% and area with weight of 10%. The grant to each state will be divided into two, a grant to duly constituted gram panchayats and a grant to duly constituted municipalities, on the basis of urban and rural population of that state using the data of census 2011.

FC/Criteria & weights	x	XI	XII	XIII	XIV	xv
Population	20	10	25	25	17.5	15
Income Distance	60	62.5	50		50	45
Area	5	7.5	10	10	15	15
Tax Effort	10	5.0	7.5			2.5
Fiscal Discipline		7.5	7.5	17.5		
Fiscal Capacity Distance				47.5		
Index of infrastructure	5	7.5				
Demographic Change					10	12.5
Forest Cover					7.5	10
Total	100	100	100	100	100	100

Table 3: Criteria and Weights Adopted by Finance
Commissions

In line with the FC that are set up at the Union level, the Constitution requires state governments to set up State Finance Commissions. The XVFC has asserted that the mandate of any given SFC is intended to be applicable only for five years. It revealed that only 15 states have set up their fifth or sixth SFCs, whereas several states have not moved beyond their second or third SFC. Accordingly, a staggering 84% of the Rs 4.4 trillion grants for local bodies recommended by the XVFC are conditional on the states setting up SFCs for the coming five-year period, and acting on their recommendations by March 2024. A staggering 84% of the Rs 4.4 trillion grants for local bodies recommended by the XVFC are conditional on the states setting up SFCs for the coming five-year period, and acting on their recommendations by March 2024. The total grants to local bodies for 2020-21 has been fixed at Rs 90,000 crore, of which Rs 60,750 crore is recommended for rural local bodies (67.5%) and Rs 29,250 crore for urban local bodies (32.5%). This allocation is 4.31% of the divisible pool. This is an increase over the grants for local bodies in 2019-20, which amounted to 3.54% of the divisible pool (Rs 87,352 crore). The grants will be divided between states based on population and area in the ratio 90:10. The grants will be made available to all three tiers of Panchayat-village, block, and district.

Table 5: Grants for disaster risk management(In Rs. crore)

Funding Windows	National corpus	States' corpus
Mitigation (20%)	2,478	5,797

Response (80%)	9,912	23,186
(i) Response and Relief (40%)	4,956	11,593
(ii) Recovery and Reconstruction (30%)	3,717	8,695
(iii) Capacity Building (10%)	1,239	2,998
Total	12,390	28,983

Source: Report for the year 2020-21, XV Finance Commission

The Commission recommended setting up National and State Disaster Management Funds for the promotion of local-level mitigation activities. The Commission has recommended retaining the existing cost-sharing patterns between the centre and states to fund the SDMF (new) and the SDRF (existing). The cost-sharing pattern between centre and states is (i) 75:25 for all states, and (ii) 90:10 for north-eastern and Himalayan states. A suggestion was made to permit States to breach the FRBM borrowing limits in the event of a shortfall in tax devolution. It was also suggested that States should be allowed a higher debt ceiling of at least 30% of GSDP, because under the debt target of 20% of GSDP, many of them would have to keep fiscal deficit below 3% of GSDP. There were also proposals for building in escape clauses for States under the FRBM framework. The Government of India urged the Commission to incentivise States to amend their FRBM acts to bring the debt-GDP ratio to 20% of their GSDP by 2024-25, by linking its transfers to fulfilment of this goal.

## **IV. Conclusion**

The XVFC has recommended maintaining the vertical devolution at 41%. The recommendations of the XVFC will confer more fiscal autonomy to union as well as states on the revenue and the expenditure fronts, as the total transfers (devolution and grants) add up to 34% of estimated Gross Revenue Receipts to the Union. In absolute terms, in 2021-22, the states will get a total of Rs.8,55,176 crore in tax devolution. In absolute terms, central tax devolution to states had peaked at Rs 7.6 trillion in 2018-19. It contracted by 15% each over the next two years and it is forecasted to expand by 21% in 2021-22 to Rs 6.7 trillion, which appears to be a credible assessment. The XVFC outlined a very comprehensive assessment of the revenue and expenditure of States and the Union. A staggering 84% of the Rs 4.4 trillion grants for local bodies recommended by the XVFC are conditional on the states setting up SFCs for the coming five-year period, and acting on their recommendations by March 2024.

#### References

- 1. Acharya, S. 2005. "Thirty Years of Tax Reforms in India", Economic and Political Weekly, May 14.
- 2. Ahluwalia, M. S. 2000. "Economic Performance of States in Post-Reforms Period", Economic and Political Weekly, May 6.
- Anand, M. and Ahuja, R. 2004. "Government Pentions: Liability Estimates and Assumptions" Economic and Political Weekly, June 19.
- 4. Bagchi, A. 2003. "Fifty years of Fiscal Federalism in India" Working Paper 2, NIPFP, New Delhi.
- 5. Bird, R. M. 2003. 'Fiscal Flows, Fiscal Balance, and Fiscal Sustainability', Working Paper 03-02, Atlanta: Georgia State University.
- 6. Boadway, R. and A. Shah (eds). 2007. Intergovernmental Fiscal Transfers. Washington DC: World Bank.
- Chakraborty. P. 1998. "Growing Imbalances in Federal Finance Relationship", Economic and Political Weekly, Feb.14.
- 8. Chelliah, R. J. 2001. "The Nature of the Fiscal Crisis in the Indian Federation & Calibrating Fiscal Policy", Published in Money & Finance, ICRA Bulletin.
- 9. Chelliah, R. J. 2010. Political Economy of Poverty Reduction in India. New Delhi: Sage.
- 10. Dahlby, B. 2005. Dealing with the Fiscal Imbalances: Vertical, Horizontal and Structural. Toronto: C.D. Howe Institute.
- 11. Diaz-Cayeros, A. 2006. Federalism, Fiscal Authority, and Centralization in Latin America. New York: Cambridge University Press.
- 12. Dikshit, A. Viswanathan, R, Raghunandan, T.R. 2007. "Efficient Transfer of Funds for Centrally-Sponsored Schemes", Economic and Political Weekly, June 9-15.
- 13. Fifteenth Finance Commission Report (2021), Finance Commission, New Delhi.
- 14. Fourteenth Finance Commission Report (2015), Finance Commission, New Delhi.
- 15. Garg, S. C. 2006. "Transformation of Central Grants to States Growing Conditionality and Bypassing State Budgets", Economic and Political Weekly, December 2.
- Hallwood, P. and R. MacDonald. 2005. 'The Economic Case for Fiscal Federalism', in B. Ashcroft, D. Coyle and W. Alexander (eds), New Wealth for Old Nations. Princeton (NJ) USA: Princeton University Press, 96-116.
- 17. Heredia, E. and Rider, M. 2005. "India's Intergovernmental Transfer System and the Fiscal Condition of the States", Andrew Young School of Policy Studies research paper series no.06.
- 18. Lahiri, A.K. 2000. "Sub-National Public Finance in India", Published in Economic and Political Weekly, April 29.
- Lahiri, A.K. and Kannan, R. 2002. "India's Fiscal Deficits and Their Sustainability in Prespective", Discussion paper no.5, NIPFP, New Delhi.
- 20. Lee, M. 2006. 'Tax Cuts and the Fiscal Imbalance.' Vancouver: Canadian Centre for Policy Alternatives BC Office.
- 21. Montero, A. 2001. 'Decentralizing democracy: Spain and Brazil in comparative perspective', Comparative Politics, 33, 2, 149-169.
- 22. Mundle, S. and Rao, M.G. 1992. "Issues in Fiscal Policy", Working Paper No. 12, National Institute of Public Finance and Policy, New Delhi.

- 23. Musgrave, R. 1959. The Theory of Public Finance. New York: McGraw-Hill.
- 24. Oates, W. E. 1977. "The Political Economy of Fiscal Federalism", Lexington Books.
- 25. Panda, P. K. 2016. "Focus on Fiscal Stability". The Hans India, 3<sup>rd</sup> February.
- 26. Pinto, B. and Farah, Z. 2004. "India: Why Fiscal Adjustment Now", Policy Research Working Paper 3230, The World Bank.
- 27. Pisauro, G. 2001. 'Intergovernmental Relations and Fiscal Discipline: Between Commons and Soft budget Constraint', IMF Working Paper No. 1/65. Washington: IMF.
- 28. Rakshit, M. 2000. "On Correcting Fiscal Imbalance in the Indian Economy: Some Perspectives" Money and Finance, pp 19-58.
- 29. Rao, B. Gupta, M., Jena, P.R. 2007. "Central Flows to Panchayats A Comparative Study of Madhya Pradesh", Economic and Political Weekly, February 3-9.
- 30. Rao, M. G. 2000. "Tax Reforms in India- Achievements and Challenges", Asia Pacific Development Journal, 7:2.
- 31. Rao, M. G. 2002. "State Finances in India: Issues and Challenges", Economic and Political Weekly, August 3.
- 32. Rao, M. G. 2004. "State Level Fiscal Reform in India", (Edt), Oxford University Press, 2004.
- Rao, M. G. and N. Singh. 2002. 'The Political Economy of Center-State Fiscal Transfers in India', in John McLaren (ed.), Institutional Elements of Tax Design and Reform. Washington DC: World Bank, pp. 69-123.
- 34. Rao, M.G. 2003. "Incentivising Fiscal Transfers in the Indian Federation", Publius: Journal of Federalism, 33:4.
- 35. Rao, M.G. and Singh, N. 2004. "Asymmetric Federalism in India", Working Paper, National Institute of Public Finance and Policy, New Delhi.
- Rodden, J. and E. Wibbels. 2002. 'Beyond the Fiction of Federalism: Macroeconomic Management in Multi-tiered Systems', World Politics, 54, 4, 494-531.
- 37. Rodden, J., G. Eskeland, and J. Litvack. 2003. Fiscal Decentralization and the Challenge of Hard Budget Constraints. Cambridge Massachusetts :The MIT Press.
- Ruggeri, G. C. and R. Howard. 2001. 'On the Concept and Measurement of Vertical Fiscal Imbalances', SIPP Public Policy Paper No. 6. Canada: University of Regina.
- Shah, A. 2007. 'A Practitioner's Guide to Intergovernmental Fiscal Transfers', in Robin Boadway and Anwar Shah (eds), Intergovernmental Fiscal Transfers. Washington DC: World Bank, pp. 1-51.
- 40. Sharma, C. K. 2009. 'Emerging Dimensions of Decentralization Debate in the Age of Globalization', Indian Journal of Federal Studies, 19, 1, 47-65.
- 41. Sharma, C.K. 2011. 'Multilevel Fiscal Governance in a Balanced Policy Environment', The India Economy Review, 8, 1, 90–7.
- 42. Singh, R. and A. Plekhanov. 2006. 'How Should Subnational Government Borrowing Be Regulated? Some Cross-Country Empirical Evidence', IMF Staff Papers, 53, 3, 426-53.
- 43. Smart, M. 2005. 'Federal Transfers: Principles, Practice and Prospects', Working paper, Canada: C. D. Howe Institute.
- 44. Wellich, D. 2000. The Theory of Public Finance in a Federal State. New York: Cambridge University Press.