

Fiscal Issues and Allocative Efficiency

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Key Objectives

- ❑ To prepare a comprehensive documentation of taxes and user charges for transport sectors in India
- ❑ To evaluate gains to the economy when delivery of the transport services becomes relatively efficient through removing tax and other policy distortions

Motivation

- ❑ The existing complex tax regime affects delivery of transport services
- ❑ Other factors including financing, pricing, maintenance, governance, etc.
- ❑ Documenting tax complexity and multiplicity
- ❑ Absence of any quantitative measure of efficiency of transport services

Chapter outline

- ❑ The system of taxes and user charges in transport sector
 - Rail
 - Road
 - Civil Aviation
 - Ports and Shipping
- ❑ Trends in tax revenues
- ❑ Economic rationale of taxes and user charges
- ❑ Sources of fiscal inefficiencies
- ❑ Cost of inefficiencies in transport sector
- ❑ Modelling results
- ❑ Recommendations

Transport Pricing

- ❑ Transport pricing policy: A collection of tools that affect the final price of transport services.
- ❑ Transport taxes and user charges: two major components of transport pricing policy.
- ❑ Transport pricing: a complex issue ~
 - multiplicity of taxes and charges,
 - internalisation of negative externality,
 - inter-modal choice,
 - sustainability.
- ❑ Very difficult to introduce transport pricing that covers all direct costs as well as adequately reflects social and environmental costs.
- ❑ Effectiveness of other public policies towards transport depends on transport pricing.

Power of regulation: Constitutional mandate

- Three lists vide the Seventh Schedule (Article 246) of the Indian Constitution, viz. Union List, State List and Concurrent List
- Centre:
 - railways; national highways; shipping and navigation on inland waterways; maritime shipping and navigation; lighthouses; major ports; airways, aircraft, and air navigation; provision of aerodromes; petroleum and petroleum products; customs; excise; and inter-state trade and commerce.
- States:
 - roads; bridges; ferries; other means of communication not specified in Union List; municipal tramways; inland waterways not specified in the Union or Concurrent Lists; taxes on entry of goods into a local area for consumption, use or sale therein; taxes on goods and passengers carried by roads or on inland waterways; taxes on vehicles; taxes on boats; and tolls.
- Concurrent List:
 - non-major ports and parts of shipping and navigation on inland waterways subject to the provisions of the Union List with respect to national waterways.

Table 1: Important taxes in transport sectors

Sr. No.	Name of Tax	Levyng authority	Important components	Mode
1	Taxes on Vehicles	State Governments- State Transport Authority/ Regional Transport Authority	Receipts under the Indian Motor Vehicles Act, Receipts under the State Motor Vehicles Taxation Act, Receipts under State Toll Tax, Services and Service Fees, etc.	Road
2	Taxes on Goods and Passengers	State Governments	Passenger Tax, Goods Tax, Tax on entry of Goods into Local Areas, Tolls on Roads, etc. (nomenclature depends on state specific act)	Road and Inland Water Way
3	Other taxes and duties on commodities and services	State Governments	Foreign Travel Tax (Tax on travel by Air, Tax on travel by Sea), Inland Air Travel Tax	Air, water
4	Taxes on Sales, Trade, etc.	State Governments - department of commercial taxes	State Sales Tax Act, Central Sales Tax Act, Tax on Sale of Motor Spirits and Lubricants	All modes, Fuels
5	Service tax on Transport Services	Central Government	Air Travel Agent Services Tour Operator Services Goods Transport Operator Services Port Services Service on Repair Provided by Authorised Service Station for Motor Car and Two Wheeled Vehicles Cargo Handling Services Rail Travel Agent Services Airport Services Transports of Goods by Road Ship Management Services Transports of Coastal Goods and Goods through National Waterways	All modes
6	Excise	Central Government	Excise duty and cess on transport goods	All modes, Fuels
7	Customs	Central Government	Custom duty and cess on transport goods	All modes, Fuels

Rail

□ Central Tax:

1) Excise duty:

- Rolling stock: Railway or tramway locomotives, rolling stock and parts thereof (10 %)
- Other equipments: Railway or tramway track fixtures and fitting and parts thereof; mechanical (including electromechanical) traffic signalling equipment of all kinds (10%)
- Fuel: High Speed Diesel (Rs. 2.6/l, Additional Excise Duty Rs. 2/l), Coal (6%)

2) Custom tariff:

- Rolling stock: Railway or tramway locomotives, rolling stock and parts thereof (Basic 10 %, CVD 5.15% , Special CVD 4%, Total duty with 3% education cess = 20.78%. Free import policy)
- Other equipments: railway or tramway track fixtures and fitting and parts thereof; mechanical (including electromechanical) traffic signalling equipment of all kinds (Basic 10 %, CVD 10.3% , Special CVD 4%, Total duty with 3% education cess = 26.849%. Free import policy)
- Fuel: HSD (Basic 7.5%, CVD Rs. 2.6/l, Addl. Custom duty Rs. 2/l), Coal (Basic duty 10 to 55 % depending on coal type, CVD 6%, Spl. CVD 0%, Education cess 3%)

3) Service tax: Rail travel agent services, Transport of goods by rail service (12 %, education cess 3%, total = 12.36%)

Rail (contd.)

User Charges:

- ❑ Differentiate the fare from other types of user charges paid by transport service provider or passengers.
- ❑ There is no explicit user charge levied on rail infrastructure.
- ❑ Does not internalise the cost of depreciation of infrastructure.

Central Subsidy:

- ❑ Indirect subsidies to Indian railways neglecting the financial sustainability and overall allocative efficiency should be relooked immediately
- ❑ Cross subsidisation exists - freight and passenger earnings contributed approximately 64 and 28 per cent of gross traffic receipts respectively in 2010-11 (Rail freight rates in India are higher compared to China)
- ❑ India: budgetary subsidy to rail was 1046 crores (2002-03), 2840 crores (2010-11)

Road

▣ Central Tax:

1) Excise duty:

- ▣ Vehicles and parts: Motor vehicles for the transport of persons and goods (varying rate for cylinder capacity, engine type, capacity, chassis, etc), motorcycles, bicycles, Parts and accessories of vehicles, etc (Excise duty is a mixture of ad valorem and unit specific tax rates. It varies from 10% to 22% + a specific rate per unit)
- ▣ Fuel: Petrol/MS (Basic duty Rs. 6.35/l, Spl Additional Excise duty Rs. 6.35/l, Additional Excise duty Rs. 2/l. The rate also differ whether petrol is branded or not), High Speed Diesel (Rs. 2.6/l, Additional Excise Duty Rs. 2/l), CNG (nil).

2) Custom tariff:

- ▣ Vehicles and parts: Motor vehicles for the transport of persons and goods (varying rate for cylinder capacity, engine type, capacity, chassis, etc), motorcycles, bicycles, Carriages for disabled persons, Parts and accessories of vehicles, etc (basic duty varies from 10% to 100%, CVD varies from 10.3% to 22.66%, special CVD 4%, Total duty with education cess of 3% varies from 26.85% to 159.67%)
- ▣ Fuel: Petrol/MS (Basic duty 7.5%, CVD Rs. 6.35/l + Rs. 6/l + Rs. 2/l, Additional custom duty Rs. 2/l), HSD (Basic 7.5%, CVD Rs 2.60/l, Additional custom duty Rs 2.00/l)

3) Service tax: Rent-a-Cab Scheme Operator Services, Tour Operator Services, Goods Transport Operator Services, Service on Repair Provided by Authorised Service Station for Motor Car and Two Wheeled Vehicles, Transports of Goods by Road, Travel Agents (other than Air Travel Agents)

Road (contd.)

□ State Tax:

- 1) Taxes on Vehicles: popularly known as Motor Vehicle Tax (MVT) or Road Tax (widely varies across states, different parameters)
- 2) Taxes on Goods and Passengers: levied on goods and passengers carried by road or inland water way only (entry tax is one of the components)
- 3) Taxes on Sales, Trade, etc: State Sales Tax Act (VAT), Tax on Sale of Motor Spirits and Lubricants, and Surcharge on Sales Tax

□ User Charges (Toll):

- National Highways - Base rates per KM for different types of vehicles are predetermined in 2007-08 and every year this base rate will be increased by 3%. The effective rates will be revised every year to reflect the change in Wholesale Price Index (WPI)

□ Cess:

- Rs 2 per litre is levied as cess or additional duty of excise and custom on both petrol and high speed diesel (HSD) oil
- Credited to the Consolidated Fund of India and thereafter Parliament, by appropriation, credits such proceeds after adjusting the cost of collection to CRF (distributed amongst the three Ministries - of Rural Development, Railways, and Road Transport and Highways)

Important user charges in transport sectors

Sr. No.	Name of charges	Levyng/collection authority	Important components	Mode
1	Toll in National Highways	National Highway Authority of India, Private Operators (Public Private Partnership projects)	Toll charges on National Highways, Fees for use of permanent bridges, bypass or tunnel	Road
2	User charges in Major Ports	Major Ports (Port Trusts)	Port Dues Berth Hire Pilotage & Towage Wharfage charges Demurrage Charges Anchorage Salvage & Divers fees Dry docking Water supply to vessels Licence fee for space	Water
3	User Charges in Airports	Airport Authority of India, Private Operators	Route Navigation Facility Charges Landing and Parking Charges Terminal Navigational Landing Charges	Air

Fund Collected for Cess on High Speed Diesel and Petrol in India

Year	Amount Collected (Rs crore)
2005–06	11313.7
2006–07	12206.5
2007–08	13264.4
2008–09	15198.2
2009–10	16590.7
2010–11	16978.9

Source: Lok Sabha Unstarred Question No. 1707, dated 10 December 2008
and Rajya Sabha Unstarred Question No. 1810, dated on 8 December 2011

Allocation of Central Road Fund in 2009–10

Allottee	Amount (Rs crore)
National highways	8,578
Rural Roads	4,843
Railways	9,58
Grant to State Governments and UTs for State roads	2,070
Grant to States & UTs for Roads of Inter-State Connectivity and Economic Importance	230
Total	16,680

Multiplicity of laws

Multiplicity of laws and taxes	Important laws/Taxes
Laws governing access control to National Highways	(i) National Highways Act, 1956 (ii) National Highways Rules, 1957 (iii) The National Highways Authority of India Act, 1988 (iv) National Highways (Land and Traffic) Act, 2002 (v) Highways Administration Rules, 2003.
Laws governing inter-state movement of goods	(i) Central Sales Tax Act, 1956 (ii) Various state sales Acts / state VAT (iii) Various local / municipal Acts governing Octroi and entry tax (iv) The Carriers Act, 1865 (regulating the liability of carriers)
Laws governing inter-state movement of vehicles	(i) The Motor Vehicle Act (MVA), 1988 (Amended in 1994, 2000, and 2001) (ii) The Central Motor Vehicle Rules (CMVR), 1989 (Amended in 1994, 2000, 2002, 2004, and 2005) (iii) Various state motor vehicles Acts.
Taxes	Road tax, also known as Motor Vehicle Tax State VAT / sales tax Passengers and Goods Tax (P>) which includes entry tax State toll taxes Service tax on output of this sector as well as secondary activities.
User charges / fees	Registration of motor vehicles Obtaining of driving licenses Transfer of ownership of motor vehicles Permit for transport vehicles Certificate of fitness for transport Tolls on roads and bridges

Civil Aviation

■ Central Tax:

1) Excise duty:

- Aircraft, spacecraft and parts thereof: Helicopters, aeroplanes, Aircraft launching gear; deck arrestors or similar gear; ground flying trainers; parts thereof are subject to central excise duty (the rate is 10% for aeroplanes and helicopters, 5% for Aircraft launching gear, deck arrestor or similar gear and parts thereof)
- Fuel: Basic excise duty on Aviation Turbine Fuel (ATF) is 8%. There is no additional excise duty.

2) Custom tariff:

- Aircraft, spacecraft and parts thereof: Helicopters, aeroplanes, propellers, air combat simulator, etc. are subject to custom duty and other trade restrictions are applied to these goods (basic varies from 2.5 to 10%, CVD is applicable to private aircrafts at 10% plus education cess (3%), special CVD is 4%, total duty varies from 6.7% to 14.7%)
- Fuel: Basic custom duty on ATF is nil (ATF is domestically produced). However, 8% CVD is levied on ATF.

3) Service tax: Air Travel Agent Services, Tour Operator Services, Cargo Handling Services, Airport Services, etc are taxed at 12% plus education cess of 3%, total 12.36%.

Civil Aviation (contd.)

■ **State Tax:**

1) VAT/sales tax:

- Fuel: State governments collect sales tax on Aviation Turbine Fuel (ATF). The rates vary across states substantially.
- Domestic airlines spend around 35 to 40 per cent of operating costs on ATF
- Foreign airlines pay lower price for ATF due to exemption of some tariffs

■ **User Charges:**

- Airports Economic Regulatory Authority regulates
 - 1) Route Navigation Facility Charges (RNFC)
 - 2) Landing and Parking Charges
 - 3) Terminal Navigational Landing Charges (TNLC)
 - 4) Passenger service fee
 - 5) User development fee (UDF)
 - 6) Service charges for extension of watch towers

Civil Aviation (contd.)

■ **Registration charges:**

- Director General of Civil Aviation (DGCA) is responsible for issuing operating permit and registration number of aircraft to the carriers. The Registration fee varies with the maximum permissible take-off weight.

■ **Other Factors – lease (Almost 80 per cent of aircraft operated by Indian carriers are imported to India under lease agreement)**

- DGCA, Reserve Bank of India and Income Tax department are the three main regulatory bodies controlling the process of lease agreement, registration and permit for air services
- Payment of rent may be subject to withholding tax

Ports and Shipping

□ Central Tax:

1) Excise duty:

- Ships and boats: Ferry-boats, cargo ships, barges and similar vessels for the transport of persons or goods are taxed at 5%, vessels for fishery is not taxed.
- Fuel: as given in section on Road and Rail

2) Custom tariff:

- Ships and boats: Cruise ships, excursion boats, ferryboats, cargo ships, barges and similar vessels for the transport of persons or goods are taxed at 10% basic. CVD is 5.15% (other than fishing vessels), special CVD is 4%, and total duty varies from 14.7% to 26.85%.
- Fuel: as given in section on Road and Rail

3) Service tax:

- Steamer Agent Services, Port Services, Cargo Handling Services, Dredging Services of River, Port, Harbour, Backwater or Estuary, Ship Management Services, Transport of Persons by Cruise Ship, Transports of Coastal Goods, etc are taxed at 12% plus education cess of 3%, total 12.36%.

Ports and Shipping (contd.)

▣ **State Tax:**

1) VAT/sales tax:

- ▣ Vessels: ships and other vessels are taxed at 4% or 5%
- ▣ Fuel: Fuel oil is subject to sales tax as described in sections on Rail and Road.

▣ **User Charges:**

1) Port related charges:

- ▣ Port due, Berth hire charges, Anchorage fee, Pilotage fee, other charges (shifting, water, salvage of goods, diver's charge).

2) Cargo related charges:

- ▣ Wharfage (varies by goods classification, transshipment), Special port service charges on rail-borne goods passing through port, Hire of wharf cranes, Demurrage charges, Charges for special service: Labour charges other than landing and shipment, etc. and miscellaneous charges

Trends in tax revenues

Summary of Revenues and Tax Burden by Transport Modes, 2009–10 (Rs Crore)

Modes/Sector	Tax Revenue (Indirect)				
	Centre	State	Total tax	Sectoral GDP (current price)	Tax burden (%)
Aviation	1850	0	1850	11659	16
Roads	14664	29316	43980	276302	16
Rail	516	0	516	60144	1
Water	1449	-	1449	10356	14
Total petroleum	74583	66887	141470	82785	171
Petroleum for transport (estimated @ 50% of total)	37292	33443	70735	41393	171
Total transport (including petroleum for transport)	55770	62760	118530	399854	30

State Tax Revenue from road transport (Rs. Crore)

Year (31 March)	Motor Vehicle Taxes and fees	Sales tax on motor spirits and lubricants	Sales tax on passenger and goods traffic	Total
2001	6666	4161	2075	12902
2002	7644	5645	3671	16960
2003	8441	5106	3569	17116
2004	10138	4968	4190	19296
2005	10811	6657	5206	22674
2006	11964	2951	6450	21365
2007	13572	11112	7746	32430
2008	15143	1623	6808	23574
2009	16446	909	8541	25896
2010	19140	1002	9857	29999
2011	24398	709	11325	36432

Source: Statistical Year Book India, several years, State Finances: A Study of Budgets (RBI), several years.

Central Tax Revenues from road transport (Rs. Crore)

	Motor Vehicle and accessories		Tyres and tubes		HSD		MS		State and central revenues	
Year (March ending)	Import duty	Excise duty	Import duty	Excise duty	Import duty	Excise duty	Import duty	Excise duty	Total	Grand total
2001	143	561	..	138	..	986	..	558	2386	2667
2002	97	490	..	136	..	1221	..	850	2793	2821
2003	123	534	..	139	..	1161	..	1156	3113	4825
2004	144	557	..	109	..	1446	..	1258	3513	5443
2005	186	685	..	143	..	1570	..	1379	3963	6230
2006	209	697	..	111	..	2228	..	1755	4999	7136
2007	316	681	..	125	..	2506	..	1830	5458	8701
2008	435	673	..	142	..	2415	..	2010	5676	8078
2009	486	442	..	93	..	2183	..	2108	5310	8734
2010	412	933	147	112	438	472	338	2880	5731	9683
2011	651	867	255	94	1755	373	874	2677	7545	12145

Economic rationale for taxes and user charges

- ❑ To provide firms and individuals with pricing signals that guide their behaviour in a more rational economic manner – *economic efficiency vs. income distribution concern*
- ❑ Negative tax (subsidy) - justified in the presence of positive externalities
- ❑ Positive tax – justified when Private Marginal Cost is lower than Social Marginal Cost (presence of negative externalities)
- ❑ Public good, private good and goods in between:
 - ❑ non-rivalry and non-excludability are two main characteristics of public good.
 - ❑ For private and congestible goods (or services) users are identifiable and user charges can be levied
 - ❑ The difference could be financed by tax payers
- ❑ Subsidy vs. transfer: Subsidy distorts price signals whereas transfer to individual are supplementary income.
- ❑ Presence of excessive subsidy can lead to distorted inter-modal choice and misallocation of resources
- ❑ Full analysis of total effect should be done in General Equilibrium F'work

Sources of fiscal inefficiencies

- ❑ Federal structure: the lack of coordination between tax levying authorities may lead to huge transaction cost
- ❑ Waiting time at state borders
- ❑ Variation across states – big difference between bordering states
- ❑ Tax rates are not necessarily set at optimal level that fully reflects social costs due to negative externality
- ❑ Multiple tax lines create complications and cost of tax collection increases (It may also increase probability of tax evasion; ship owners registering elsewhere)

Cost of inefficiency:

- consequences of distortionary pricing policy - revenue loss due to tax evasion, higher expenditure on regulation and tax collection, transaction cost due to complicated tax system, environmental damages, distortion in investment decision, etc.

Inefficiency

- ❑ In order gauge the wedge of inefficiency, we have attempted to capture some elements of differences in the delivery of transport services across a group of countries
- ❑ Inefficiencies in transport sectors get transmitted to other sectors of the economy as
 - ❑ Some of the sectors are relatively heavy users of transport services
 - ❑ These sectors have strong linkages with rest of the economy
 - ❑ Inefficiencies get amplified
 - ❑ Land and rail transport services have strong backward and forward linkages
 - ❑ Air transport has strong backward linkages

Modelling results

- We use a computable general equilibrium model to analyse the impact of India tax rationalisation in transport services. NCAER-Michigan CGE Model
- 130 sectors of production – agriculture and allied sectors (26); mining, gas and crude oil (11); manufacturing (69 including 6 in transport equipment); and services (24 including 5 transport services)

Modelling results (contd.)

- ❑ The results show that the economy would gain through improved efficiency of transport sectors The extent of gains varies across experiments
- ❑ There are corresponding gains in trade and output
- ❑ The real returns to the factors of production, viz. land, labour, and capital register increase
- ❑ Long run gain

Way Forward

- There is need to set up a Taskforce on transport taxes and user charges. The Taskforce should chart out a **Model Act** to be circulated among states and union territories for their consideration of adoption. Relatively uniform and transparent tax regime would facilitate the country to move towards a common market

This Act may be somewhat analogous to the Model Act on Agricultural Marketing (2003).

- User charges for railways should be explicitly accounted for – internalisation of all costs in pricing system. Cross subsidisation may still exists, but in long run it should be more competitive.
- Undertake a study to identify and quantify efficiency loss due to several obstacles for free movement across state borders.

Thanks You!

RESEARCH TEAM

Rajesh Chadha

Anjali Tandon

Sourabh B. Paul