

# Challenges in Metropolitan Management: The Indian Experience

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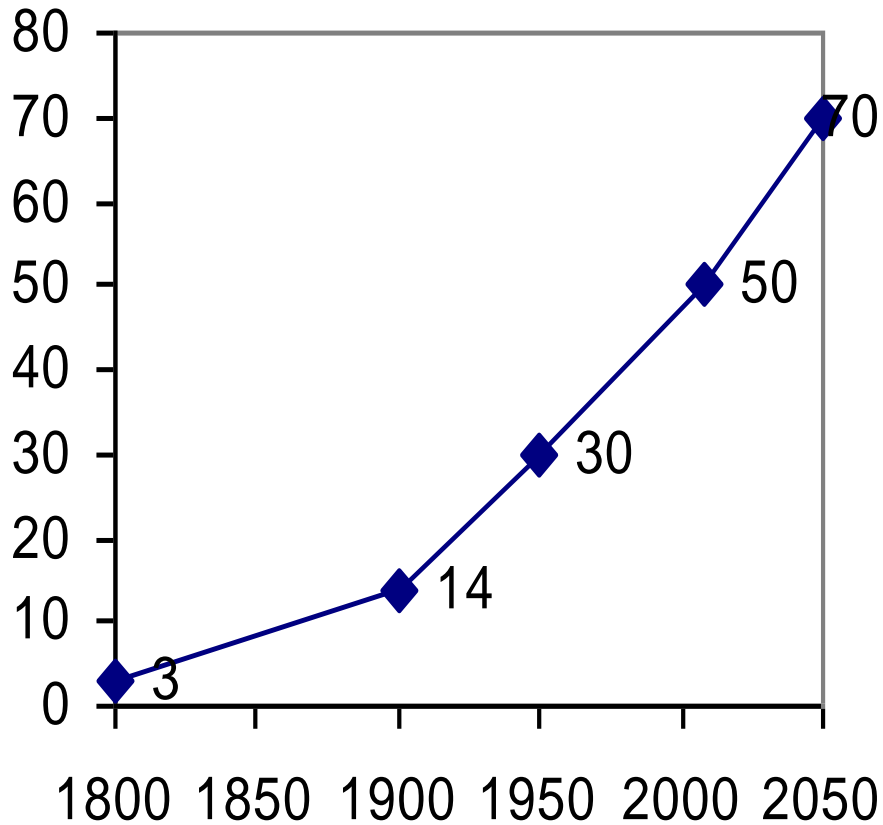
*April 19, 2012*

# Perspective

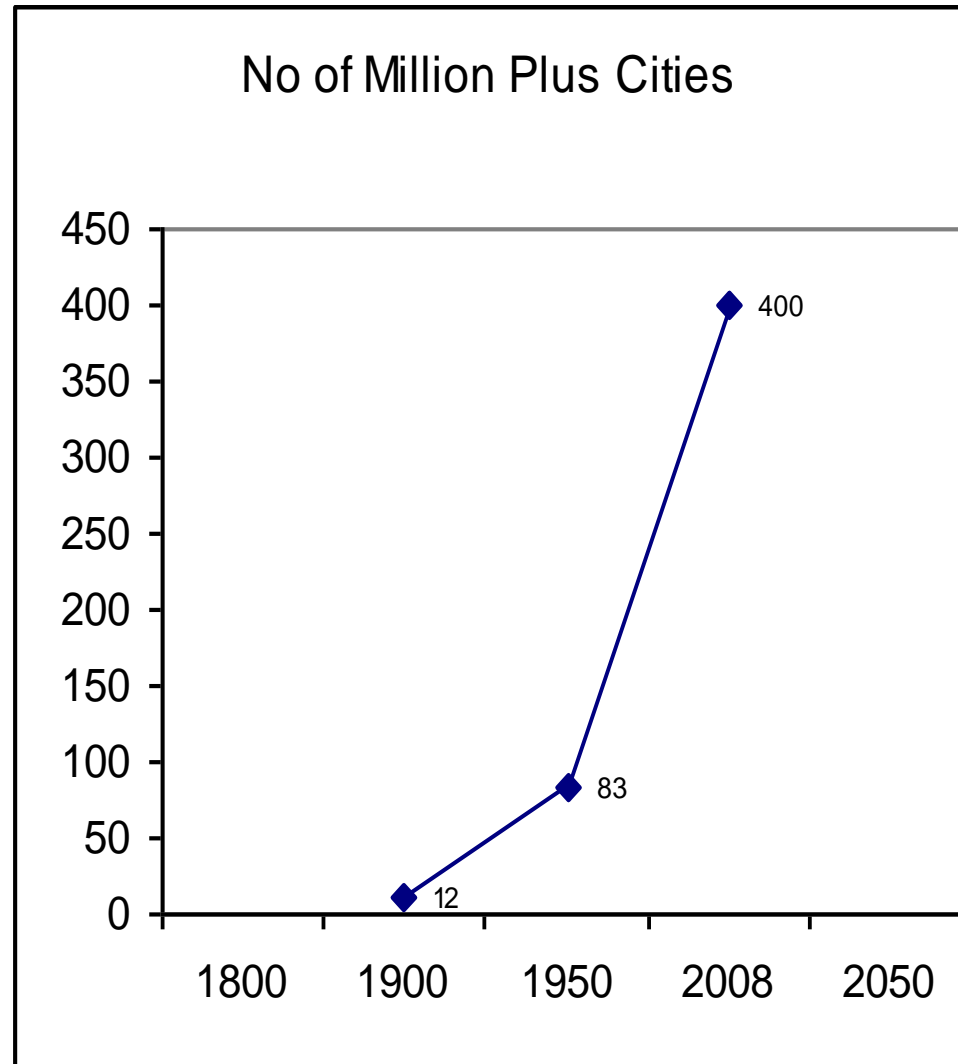
- Through most of history, the human population has lived a rural lifestyle, dependent on agriculture and hunting for survival.
- In 1800, only 3 percent of world's population in urban areas.
- By 1900, almost 14 percent were urbanites, 12 million plus cities
- In 1950, 30 percent of the world's population in urban centers: 83 million plus cities.
- Unprecedented urban growth in recent decades: world's population evenly split between urban and rural areas in 2008.
- More than 400 cities over 1 million and 19 over 10 million.
- More developed nations were about 74 percent urban, while 44 percent of residents of less developed countries lived in urban areas.
- 70 percent of the world population will be urban by 2050: most urban growth will occur in less developed countries.

# Recent Rapid Urbanisation

urban population  
(percentage)



No of Million Plus Cities



# Metropolitan Areas : World and India

- Highest population: Tokyo (32.5 m)
- Highest area: New York (17,884 sq km)
- Highest Population density: Karachi (10,727 persons/sq km)
- Population : Mumbai, Delhi within top 10, Kolkata within top 15
- Population density: all 3 megacities in top 6 cities in the world
- Over 5,000 urban areas, different sizes
- 3 megacities: Delhi, Kolkata, Mumbai
- 53 million plus cities (census 2011)
- No other country in the world has three cities in the list of top 20 cities in the world
- 286,119,689 urban population (2011): 8 m annual addition

# Largest Urban Agglomerations : Across Time

- Falling number of cities from the developed world (blue)
- Out of five cities in all the time periods (shaded), 3 are from the developing world (black)
- Urbanisation: Post globalisation phenomenon in developing world

1975	Millions	2000	Millions	2025	Millions
1. Tokyo, Japan	26.6	1. Tokyo, Japan	34.5	1. Tokyo Japan	36.4
2. New York, USA	15.9	2. Mexico City, Mexico	18	2. Mumbai, India	26.4
3. Mexico City, Mexico	10.7	3. New York, USA	17.9	3. Delhi, India	22.5
4. Osaka-Kobe, Japan	9.8	4. São Paulo, Brazil	17.1	4. Dhaka, Bangladesh	22
5. São Paulo, Brazil	9.6	5. Mumbai, India	16.1	5. São Paulo, Brazil	21.4
6. Los Angeles, USA	8.9	6. Shanghai, China	13.2	6. Mexico City, Mexico	21
7. Buenos Aires, Argentina	8.8	7. Kolkata, India	13.1	7. New York, USA	20.6
8. Paris, France	8.6	8. Delhi, India	12.4	8. Kolkata, India	20.6
9. Kolkata, India	7.9	9. Buenos Aires, Argentina	11.9	9. Shanghai, China	19.4
10. Moscow, Russia	7.6	10. Los Angeles, USA	11.8	10. Karachi, Pakistan	19.1

Source: United Nations, World Urbanization Prospects, The 2007 Revision.



Population Class (million), 2011	
★	1 to 5
★	5 to 10
★	10 and above

**Delhi**

**Ahmedabad**

**Mumbai**

**Pune**

**Bangalore**

**Hyderabad**

**Chennai**

**Kolkata**

# Urbanisation in India: Some Indicators

- Urbanization (per cent):28, at par with Burma, Guinea, Maldives
  - US:77 per cent, Canada:79 per cent
- Workers in Non Agriculture Sector (per cent) :93
- Households Having Tap as Source of water (per cent):52
- Toilets per 1000 population: 741
- Households Covered by Closed Surface Drainage (per cent):77
- Electricity Per 1000 population: 875
- Households Availing Banking Facilities (per cent):50

# Major Challenges

- How many qualifies as a global city?
  - Mumbai: a global city? Most discussed...:Some unique Characteristics
- Functions and finances : Effective Decentralisation
  - Assignment of responsibilities and sources of revenues
- Are we getting the prices right? Fiscal Health
  - Pricing mechanism, responsibilities, socio demographic and economic indicators
  - Distorted price system: sources of distortions
- Institutional arrangements : governance
  - The main players and their interaction
- Do we get what we pay for? Services as outcomes
- Reforms: Main Agenda (JNNURM and UIDSSMT)
  - Bigger metro cities like Kolkata, Delhi, Pune, Hyderabad, Chennai
  - Smaller cities in backward states



# Mumbai: Why so special?

Not financially viable,  
yet more freedom to choose.....

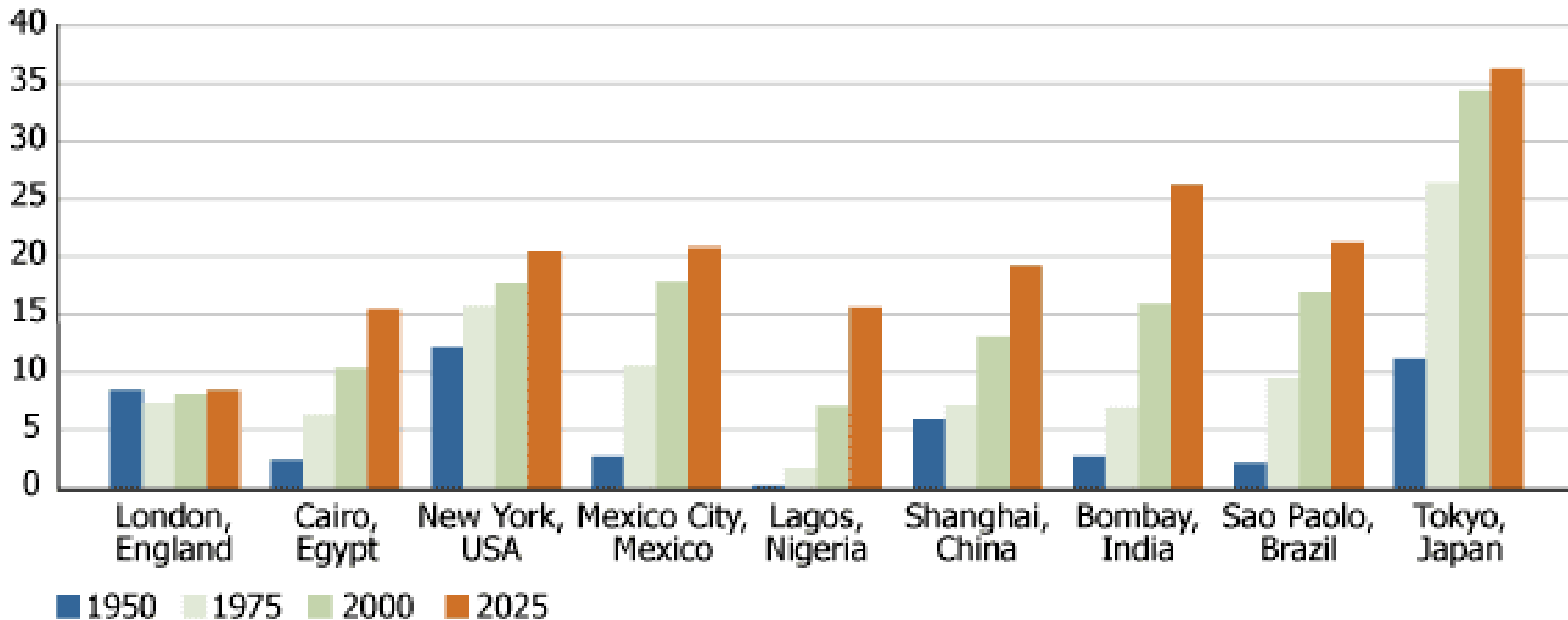
# Mumbai

- Area of 2,350 square kilometres
- Comprises 8 corporations, 9 councils
- Its administrative jurisdiction includes Mumbai City and Mumbai Suburban Districts,
- The population of Mumbai is estimated at 20 million, having risen between 2000 and 2010 by about 25 per cent
- 37 per cent migrant population, the highest of all Indian cities
- Contributes 40 per cent of Maharashtra income and 5 per cent of India's income

# World Cities : Mumbai

Phenomenal increase in population in the coming years expected: Rate higher than most cities in the world

Population (in millions)



# Unique Characteristics

- Only city with an Early development history:1950s (city and suburbs)
- Linear city: Services in the suburbs at par with the main city
- Excellent railway network connecting city and suburbs almost 24x7:Indian Railways
- Unorganised sector: choice of sustainable livelihoods even for illiterates (Dubbawalas, housemaids) : contributing to the organised sector
- Coexistence with the high-tech corporate profession, science and technology, finance expertise
- Mumbai slums: unique middle class character of chawls
- High crime rates but safe for commoners :only city with an active and safe night life
- Striking income inequality :underworld dons to Ambanis to street children
- Central Bank of India located in Mumbai

# Plausible Explanations

- Attributable to an early thinking process on agglomeration economies : Oversaturated central city
- A source of revenue like Octroi
  - Now under consideration for abolition
- Greater stability in the unorganised sector
  - Better choices even for the illiterates: important factor for sustenance of a city in a developing country
- A stable politics led by congress
- A Shiv Sena government both at the state and the municipal levels during 95-99 : Acted together to build up the necessary city infrastructure
- Big corporate lobby, financial institutions: bargaining power of the city resolving complex issues

# Socio Demographic Characteristics : UAs

Urban Agglomeration	Area (in Sq. Km.) (Total (Maximum; Minimum) of the ULBs)	Households, 2001 (Total (Maximum; Minimum) of the ULBs)	Population 2001 (Total (Maximum; Minimum) of the ULBs)	Population Growth 1991-2001 (Average (Maximum; Minimum) of the ULBs)	Density (Persons per sq.km) (Average (Maximum; Minimum) of the ULBs)
<b>Hyderabad UA</b>	752 (173; 18)	1,070,543 (660,363; 19,748)	5,557,591 (3,658,510; 94,372)	33 (116; 20)	7,387 (20,917; 1565)
<b>Chennai UA</b>	376 (648) (174; 17)	1,255,141 (962,213; 174,145)	5,601,232 (4,343,645; 76,093)	19 (1,118; 16)	9,091 (24,963; 3,529)
<b>Kolkata UA</b>	892 (186; 3)	2,583,920 (931,402; 6,772)	12,445,726 (4,580,546; 33,858)	27 (459; -1)	13,953 (38,337; 1,835)
<b>Delhi UA</b>	1,483 (1,397; 43)	334,191 (3,247,838; 25,045)	11,106,411 (10,679,152; 124,917)	46 (48; -1)	7,489 (7,643; 2,907)
<b>Pune UA</b>	664 (430; 13)	827,774 (555,771; 9,773)	3,755,304 (2,538,473; 46,921)	64 (96; -3)	5,659 (5,938; 1,303)

# Socio Demographic Characteristics :Central Cities

Central City	Area (in Sq. Km.)	Households	Population	Population Growth, 1991-2001	Population Density
Hyderabad Municipal Corporation	173	660,363	3,658,510	20	20,917
Chennai Municipal Corporation	174	962,213	4,343,645	13	24,963
Kolkata Municipal Corporation	186	931,402	4,580,546	4	24,596
Delhi Municipal Corporation	1,397	3,247,838	10,679,152	48	7,643
Pune Municipal Corporation	430	555,771	2,538,473	62	5,903

# Socio Demographic Characteristics: Smaller ULBs

Urban Agglomeration	Area (in Sq. Km.) (Total (Maximum; Minimum) of the ULBs)	Households, 2001 (Total (Maximum; Minimum) of the ULBs)	Population 2001 (Total (Maximum; Minimum) of the ULBs)	Growth rate 1991-2001 (Average (Maximum; Minimum) of the ULBs)	Density (Persons per sq.km) (Average (Maximum; Minimum) of the ULBs)
Hyderabad UA	580 (103; 18)	410,180 (65,211; 19,748)	1,899,081 (292,289; 94,372)	67 (116; 20)	3,276 (10,770; 1,565)
Chennai UA	202 (65; 17)	292,928 (73,630; 174,145)	1,257,587 (310,967; 76,093)	46 (1,118; 16)	6,220 (9,910; 3,529)
Kolkata UA	705 (55; 3)	1,652,518 (211,441; 6,772)	7,865,180 (1,007,532; 33,858)	47 (459; -1)	11,144 (38,337; 1,835)
Delhi UA	86 (43; 43)	94,079 (69,034; 25,045)	427,260 (302,343; 124,917)	8 (39; -1)	4,970 (7,031; 2,907)
Pune UA	234 (171; 13)	272,003 (231,562; 9,773)	1,216,831 (1,012,472; 46,921)	69 (96; -3)	5,209 (5,938; 1,303)



# Decentralisation?

On paper...

# Functions: Core and Welfare

- Roads and bridges
- Water supply
- Public health, sanitation conservancy and solid waste management
- Burials and burial grounds, cremation grounds and electric crematoriums
- Public amenities including street lighting, parking lots, bus stops and public conveniences

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- Safeguarding the interests of the weaker sections of society
- Slum improvement and upgradation
- Urban poverty alleviation
- Provision of urban amenities and facilities such as parks, gardens and playgrounds
- Promotion of cultural, educational and aesthetic aspects
- Cattle pounds and prevention of cruelty to animals

# Functions: Development

- Urban planning, including town planning
- Regulation of land use and construction of buildings
- Planning for economic and social development
- Fire services
- Urban forestry, protection of the environment and promotion of ecological aspects
- Vital statistics including registration of births and deaths
- Regulation of slaughter houses and tanneries

# Own Revenue Handles

## Tax

- 1 Property tax
- 2 Profession tax
- 3 Sanitation/ Conservancy Tax (if 'charge', then it's a non tax)
- 4 Scavenging tax
- 5 Latrine tax
- 6 Drainage tax
- 7 Education tax
- 8 Entry/Terminal tax
- 9 Taxes on vehicles
- 10 Advertisement tax
- 11 Entertainment tax
- 12 Pilgrim tax
- 13 Environment tax/Land Revenue
- 14 Betterment/Development tax
- 15 Passengers & Goods Tax
- 16 Timber tax
- 17 Tax/toll on animals
- 18 Cable Operator Tax
- 19 Toll/Tax on bridges/Vehicles

## Non tax

- 20 Sanitation/ Conservancy Charge
- 21 Water charges
- 22 Surcharge on Sales Tax
- 23 Birth/Death Registration fees
- 24 Betterment fees
- 25 Mutation fees
- 26 Dangerous and Offensive Trade License Fees
- 27 Slaughter house fees
- 28 Market fee
- 29 Fee for fire services
- 30 Fees on dogs
- 31 Fees for Registration of animals etc.
- 32 Parking fees
- 33 Fee on building application
- 34 Duty on transfer of immovable property
- 35 Penalty for late tax payment
- 36 Stamp Duty
- 37 Rent from Municipal Properties
- 38 Receipts from Fines
- 39 Receipts from Interest
- 40 Octroi

# Decentralisation on paper?

- Functions are transferred but many ULBs do not *actually* perform these functions
- Own revenue sources are *identified* but most of the ULBs are still dependent on state and central transfers
- Some of the major taxes and user fees are not imposed at all in many ULBs

# Prices and Pricing...

A long way to go.....

# Property Tax

Property Tax: *identified* as a major source

- Integrated with other charges for services like water and conservancy
- Transfer of property: Surcharge /stamp duty
- Annual Rental Value (Rates) or Unit Area Method
  - Element of subjectivity
- Assessment : Self (Delhi, Bangalore)/ULB authorities
- Exemptions for maintenance

# A Note on Octroi

- A tax imposed at checkpoints of entry and exit from the city
- Mostly advalorem and somewhat arbitrary but revisable rates
- Huge Collections: Ready source of revenue
- Distortionary in nature: deadweight loss as it disrupts the free flow of goods
- Subjectivity: negotiation and corruption
- Massive exit of industries: Loss of manufacturing Base (Automobile in Maharashtra)
- Intergenerational effects
- Abolished by all states except Maharashtra for corporations



# Transfers

- A Negotiated Formula Depending upon the status of commercial and economic activities of the state
- Population, deprivation index, difference compared with the highest income state, various compensations for alterations in tax regimes, etc

## **Assigned /Shared Revenues**

- Entertainment Tax, Motor Vehicles tax, Stamp Duty/Surcharge
- Various Shared Taxes: Not Uniform across States

# Grants

## Grants from Centre

- Central Finance Commission
- JNNURM
- UIDSSMT
- SJSRY
- ILCS
- IHSDP

## Grants From State

- Shared Revenue
- Compensation for Octroi
- Dalit Wasti Sudhar Yojona
- Road Grants (Maharashtra)/Road Maintenance (Hyderabad)
- Grants in aid: Education (Delhi, Pune),

# Property Tax: Rates and Collection Efficiency

<b>UA</b>	<b>Property Tax Rate</b>	<b>Collection Efficiency</b>
<b>Kolkata</b>	11-40%	35%
<b>Delhi</b>	Not Applicable	32%
<b>Pune</b>	14-38%	48%
<b>Hyderabad</b>	17-30%	72%
<b>Chennai</b>	13-25%	53%

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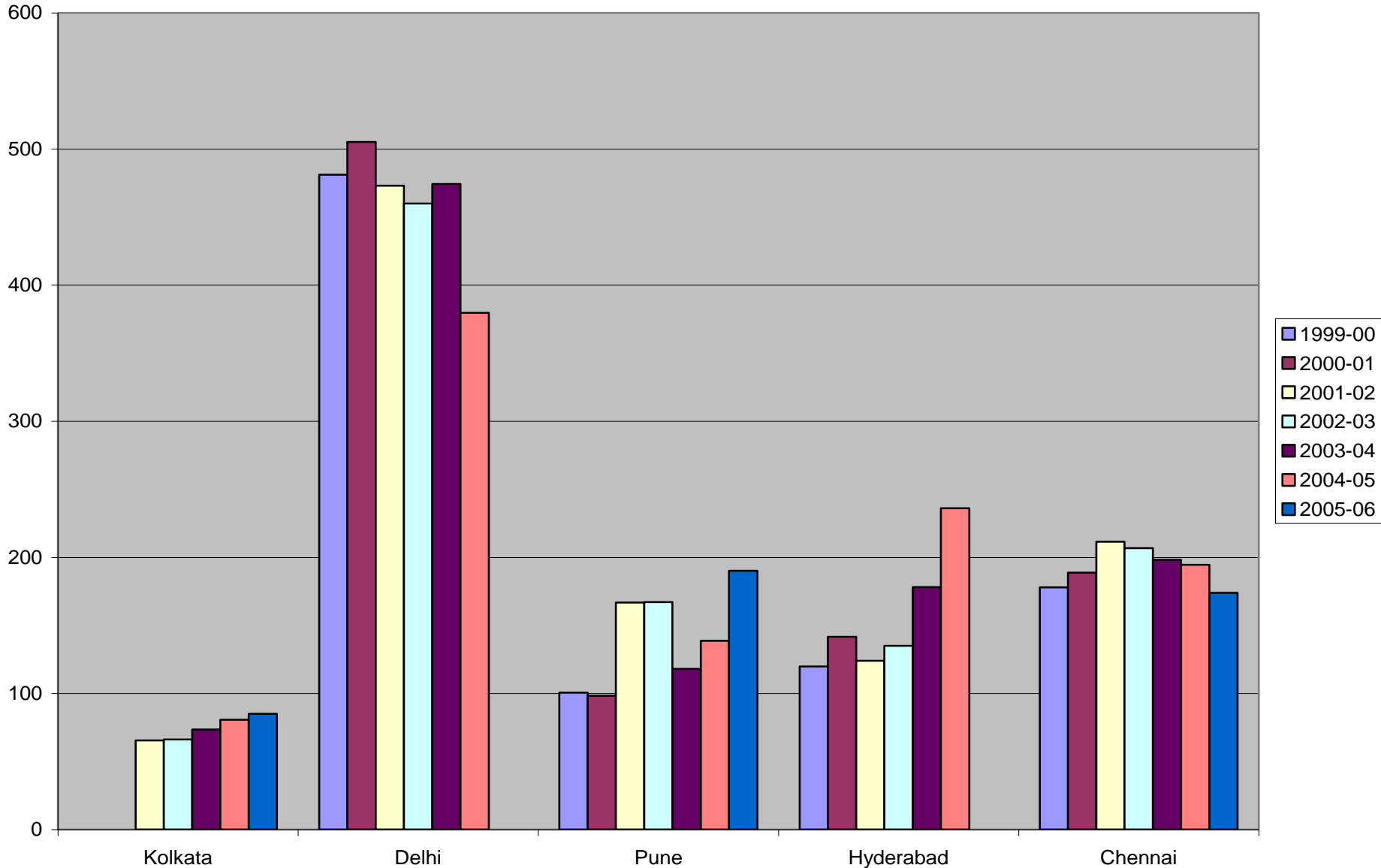
<b>Cities</b>	<b>Assessed values as a % of market values</b>
Faridabad	29.2
Ludhiana	9.4
Kolkata	20.3
Nagpur	31.1
Lucknow	30.3

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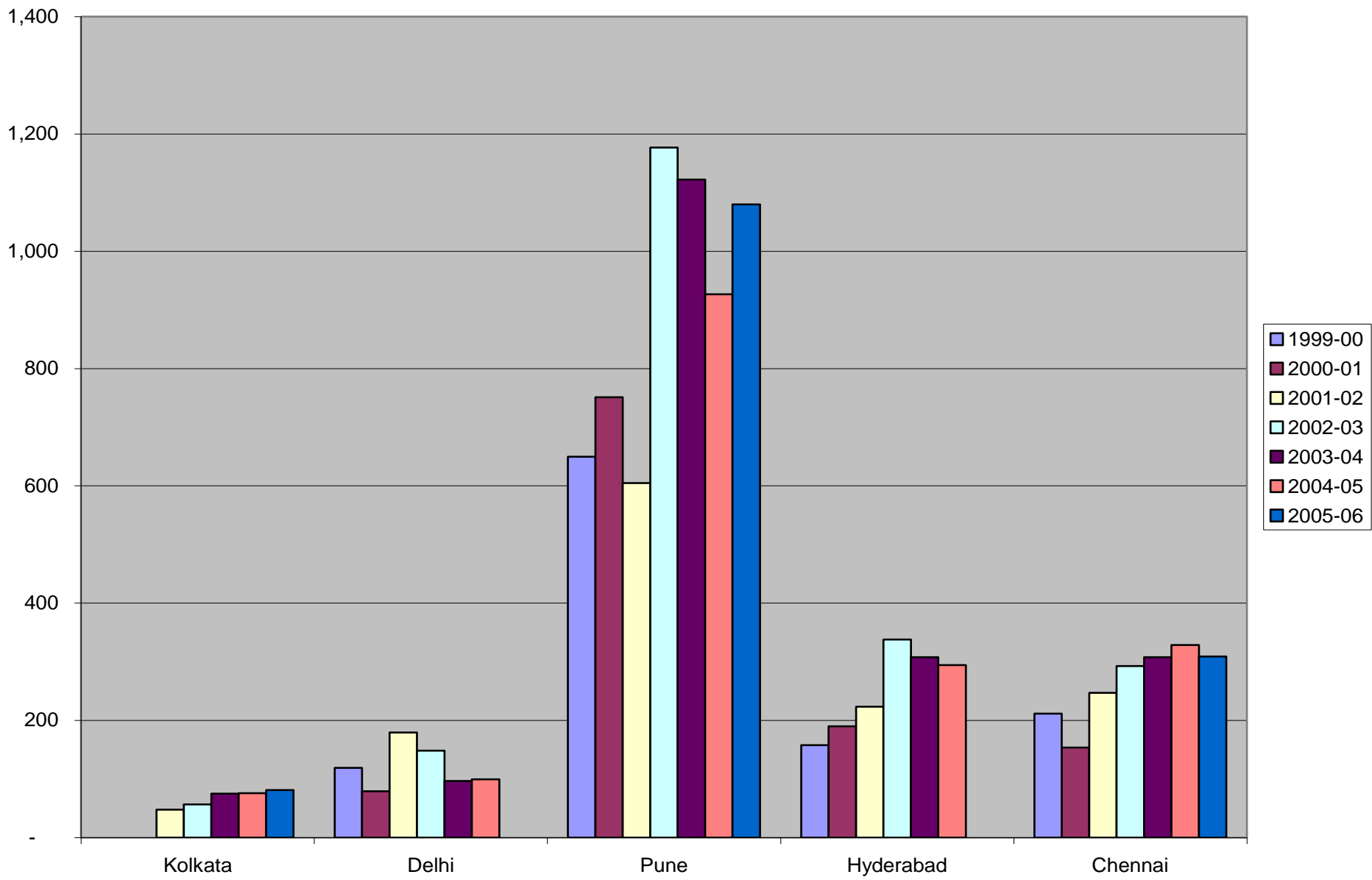
# Some Observations : Property tax

- In India, none of the methods outlined above approximate the market value of properties.
- Provisions in respect of the rate structure of property taxes vary significantly between states and among cities within states.
- An average annual growth 7.9 percent :roughly half of the growth in per capita municipal revenues.
- Large inter-city variations in property tax revenues
- Collection rate is 37 per cent of the tax demanded
- The highest collection rates :Karnataka, Tamil Nadu, Kerala, and Andhra Pradesh.
- Low :Bihar and Madhya Pradesh.
- Low collection rates :Delhi
- Corporations of Gujarat and Maharashtra: Higher per capita collections but lower collection efficiency.

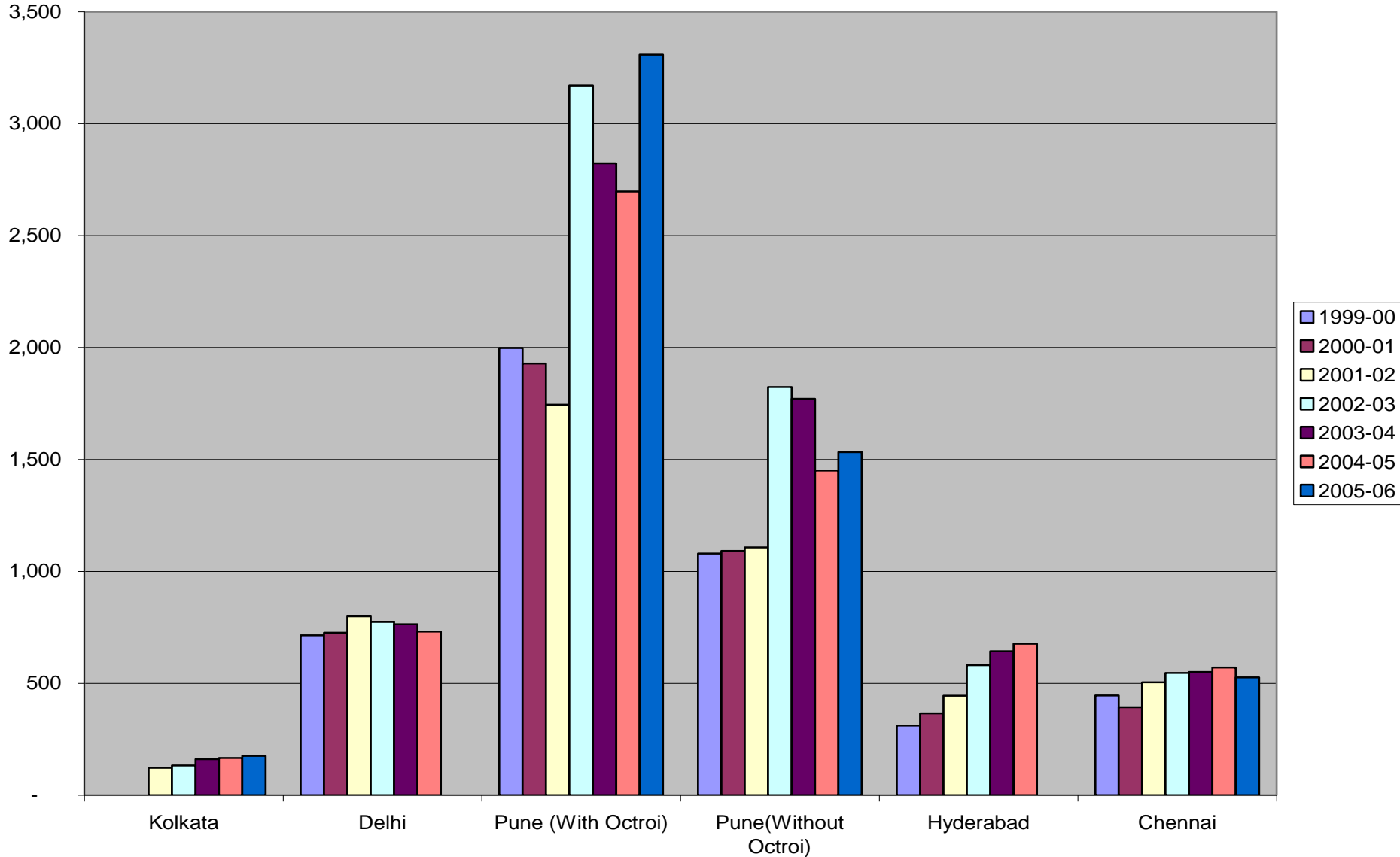
# Per Capita Property Tax : Five UAs of India (INR)



# Per Capita Non Tax Revenues :Five UAs of India (INR)

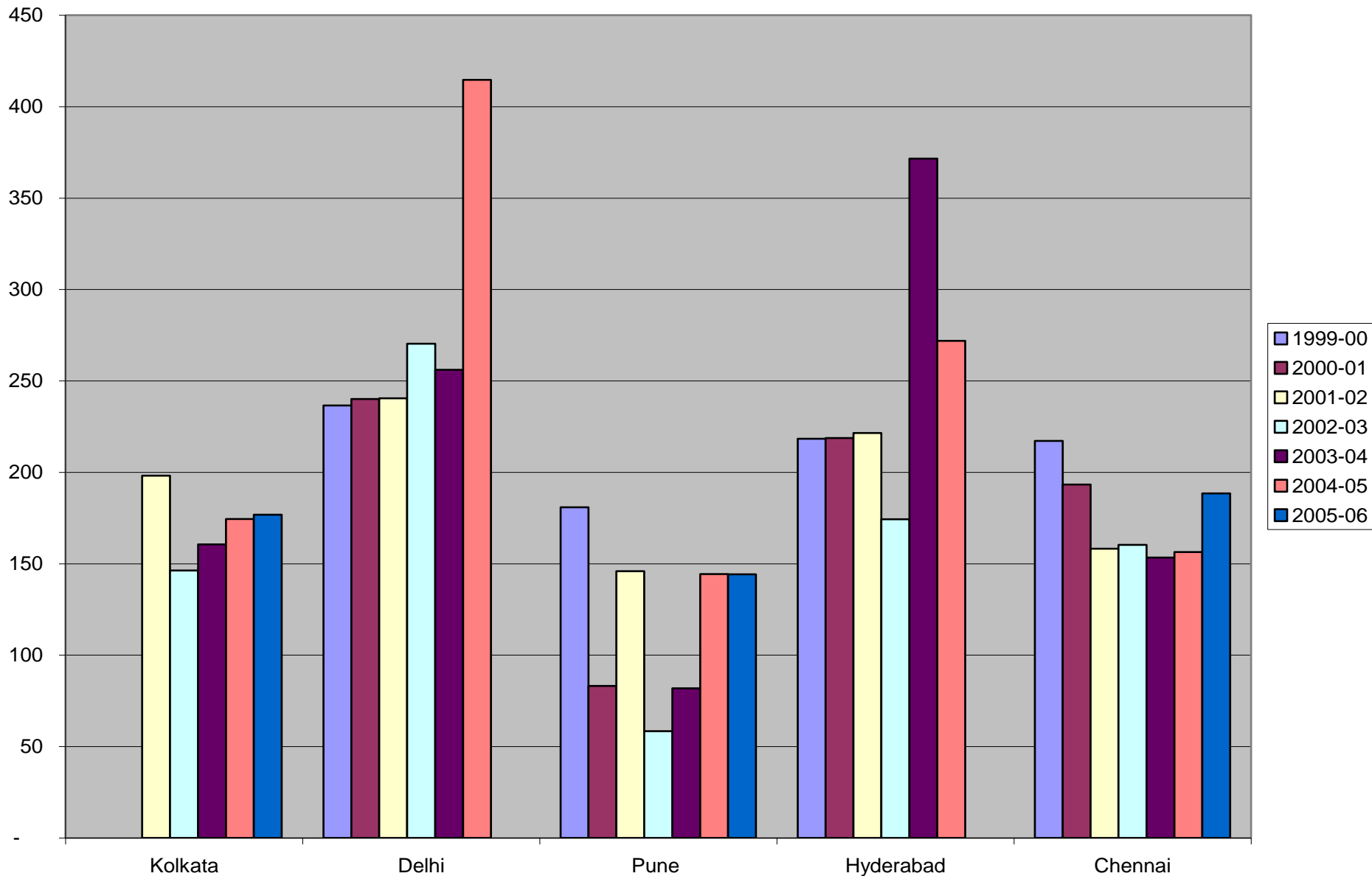


# Per Capita Own Revenues: Five UAs of India (INR)

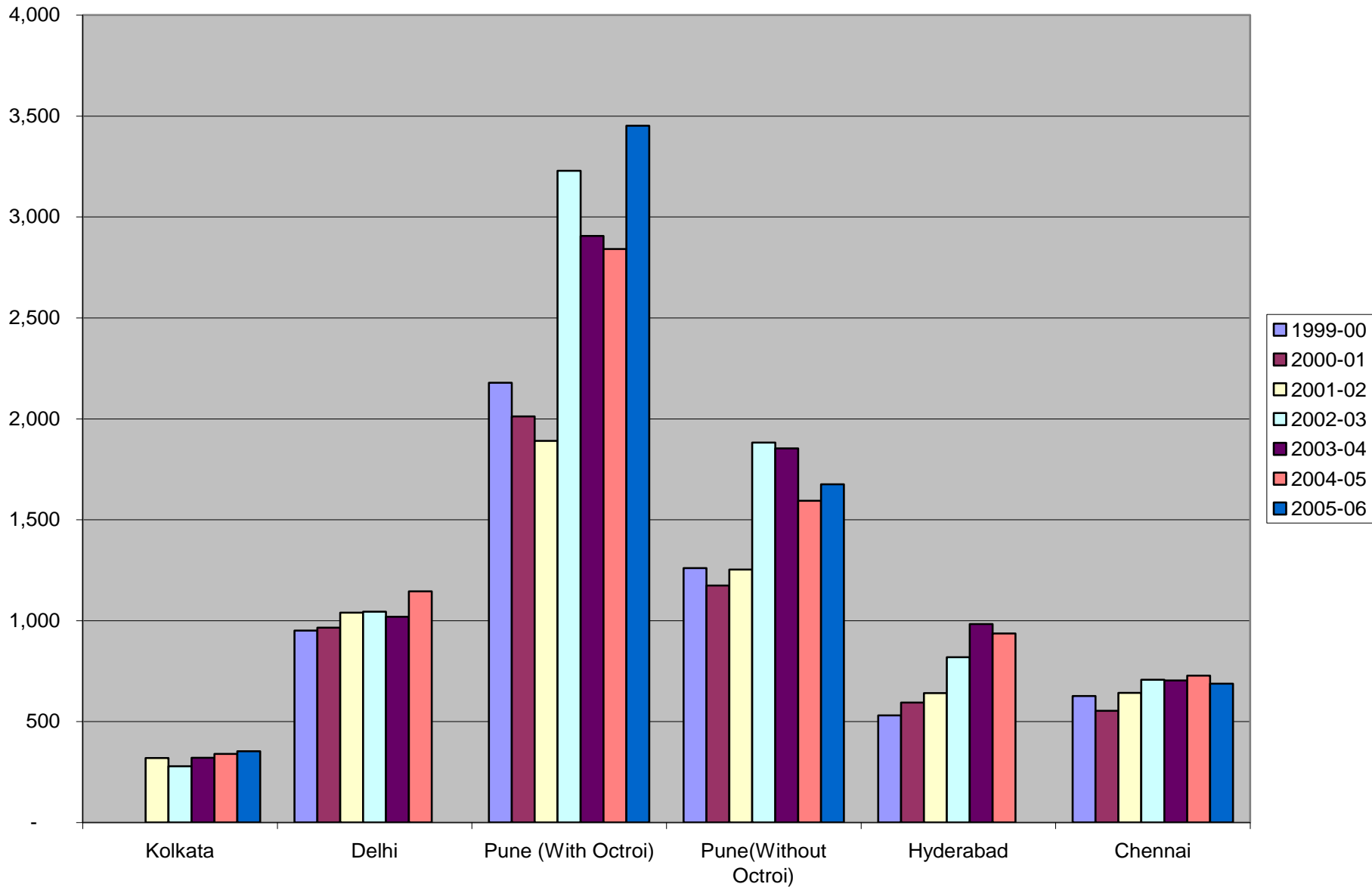




# Per Capita Transfers : Five UAs of India (INR)



# Per Capita Total Revenues: Five UAs of India (INR)



# DIFFERENT SERVICES – DIFFERENT REVENUE TOOLS

## Private

Water  
Sewers  
Garbage  
Transit

## Public

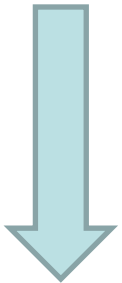
Police  
Fire  
Local parks  
Street lights

## Redistributive

Social assist.  
Social housing

## Spillovers

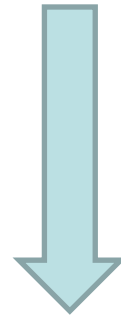
Roads/transit  
Culture  
Social assistance



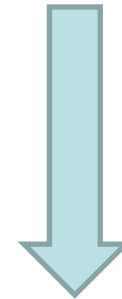
**User fees**



**Property tax**  
**Sales tax**



**Income tax**

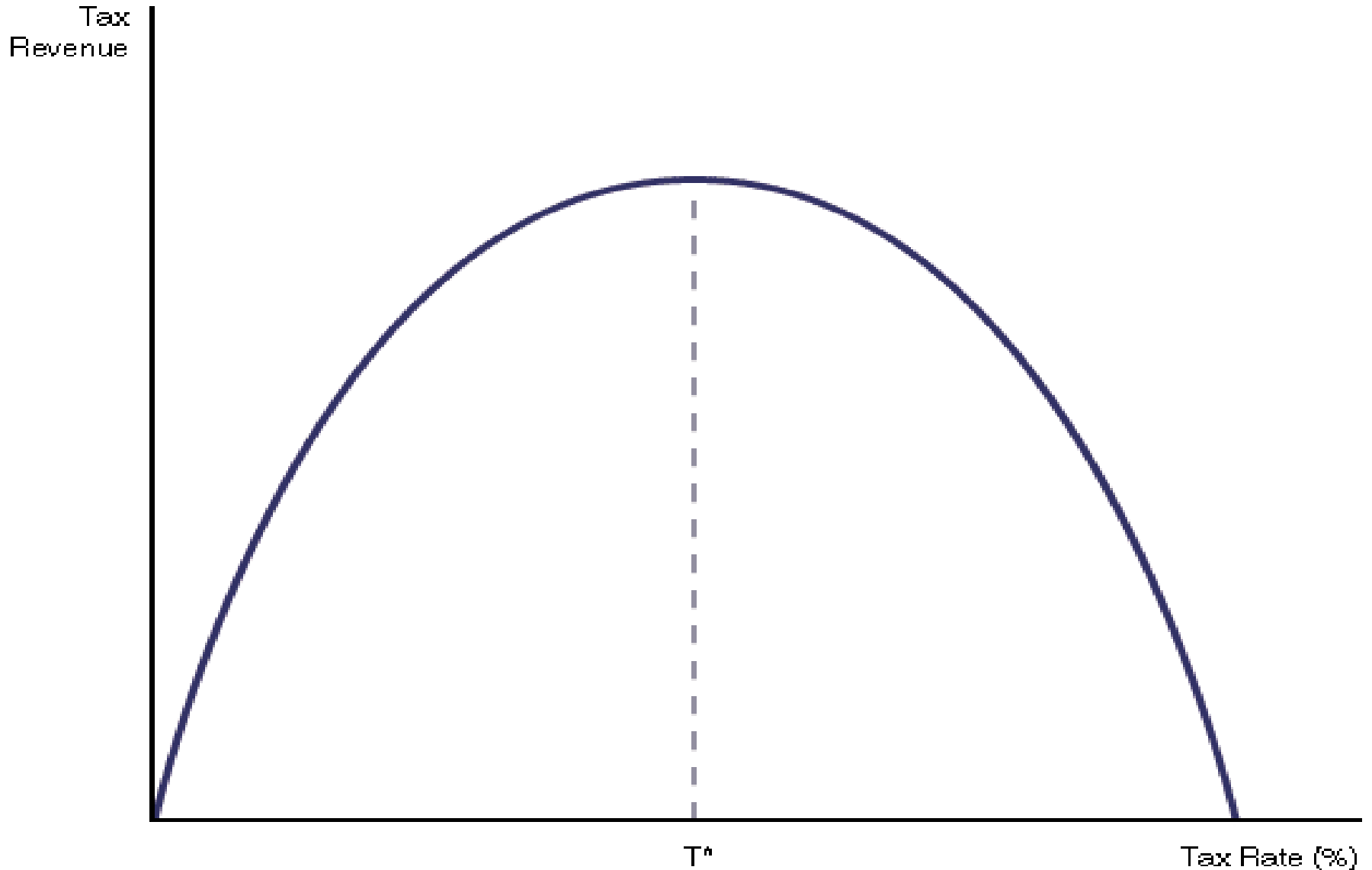


**Transfers**

# Pricing : What's Wrong?

- At the local level, benefit taxation is mostly justified
- In India, whether this principle in local taxation is applied is a question
- Local Government provides a mix of private and public goods
- For private consumption goods the pricing should be such that the consumption levels give appropriate signals to the government for quantities of provision
- Most of the revenue heads which are there on paper are not *actually* levied
- Whichever levied have low collection ratios
- Underestimation of bases, no periodic revision

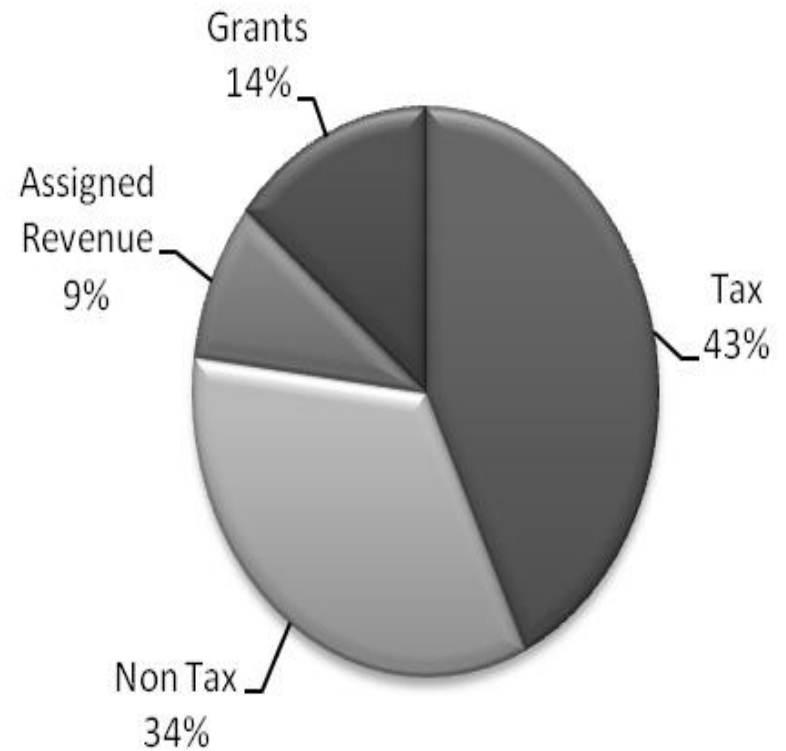
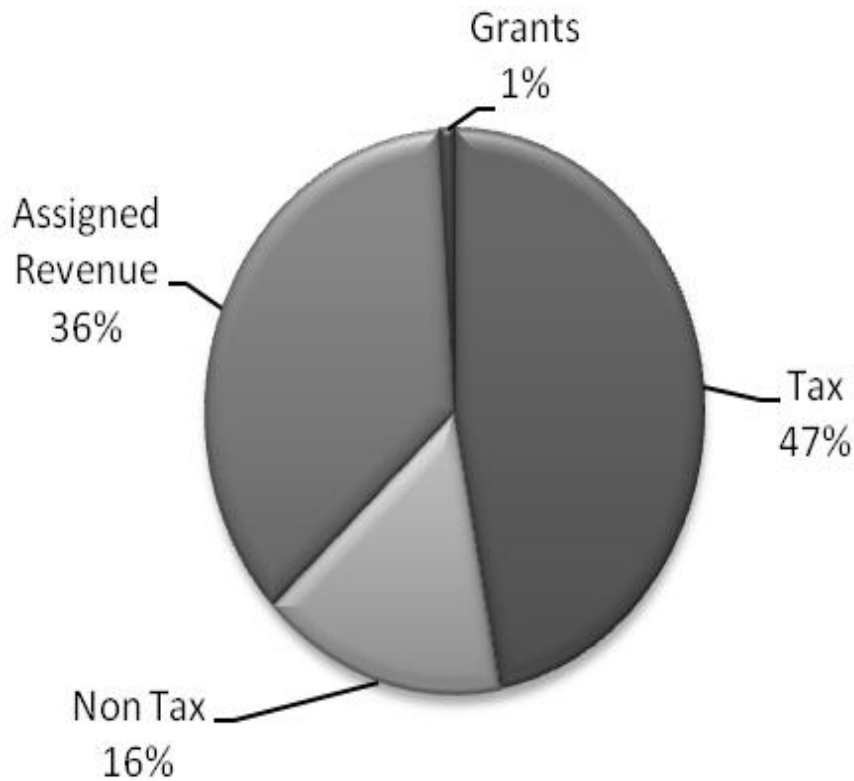
Is it that we have reached the peak of the revenue hill?: No



# Composition of Revenues

## Hyderabad (Central city)

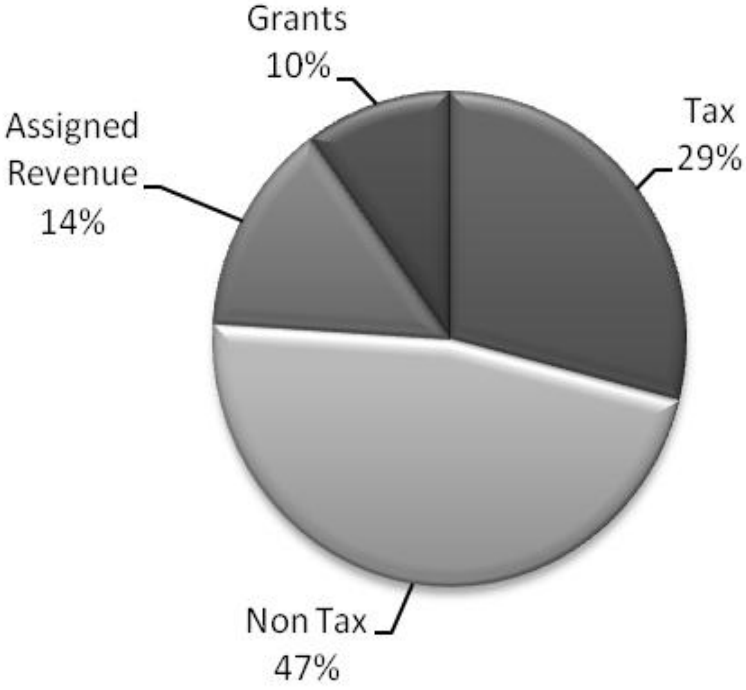
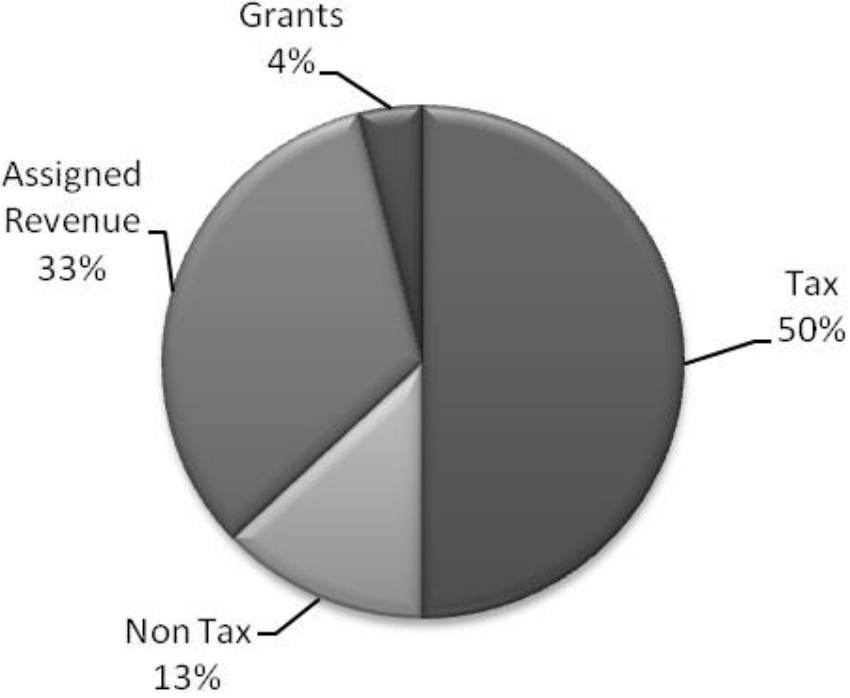
## Hyderabad (Smaller ULBs)



# Composition of Revenues

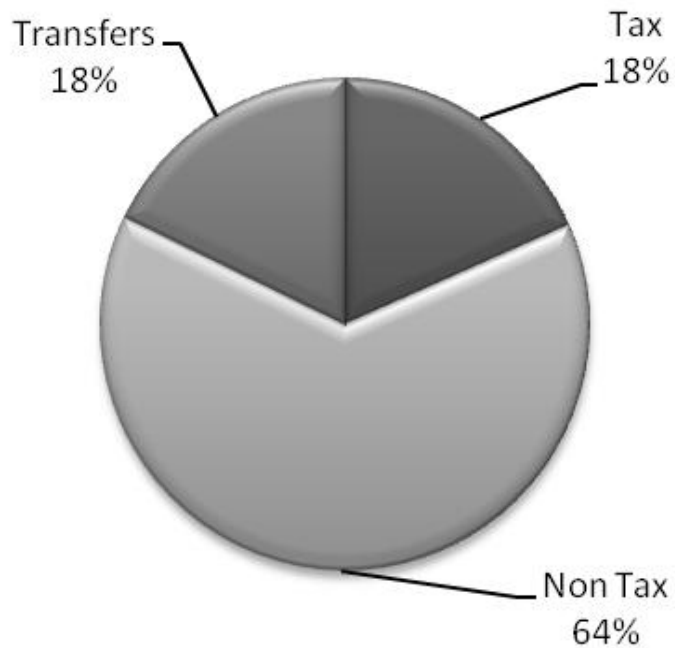
## Chennai (Central City)

## Chennai (Smaller ULBs)

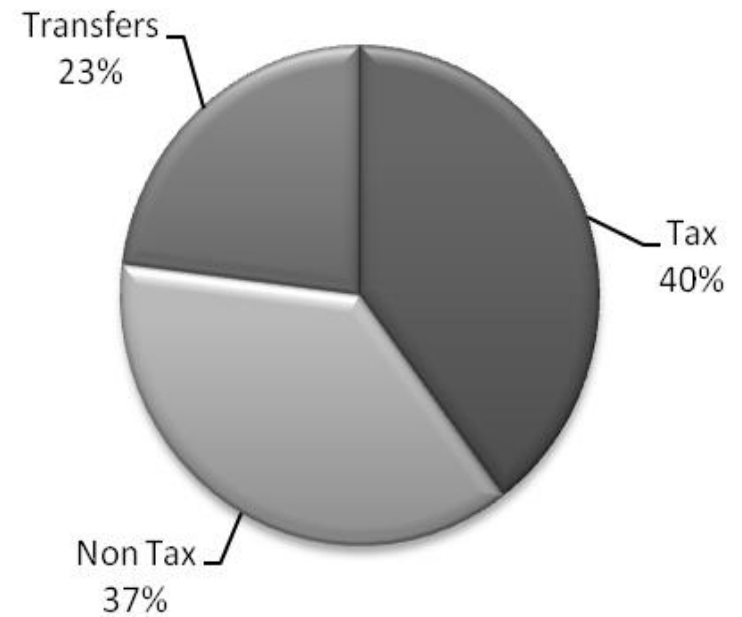


# Composition of Revenues (Without Octroi)

## Pune (Central City)



## Pune (Smaller ULBs )

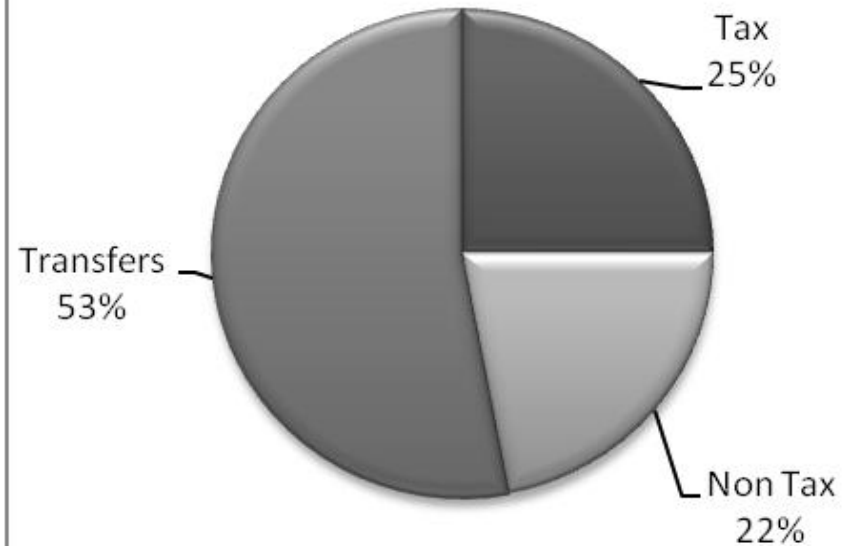
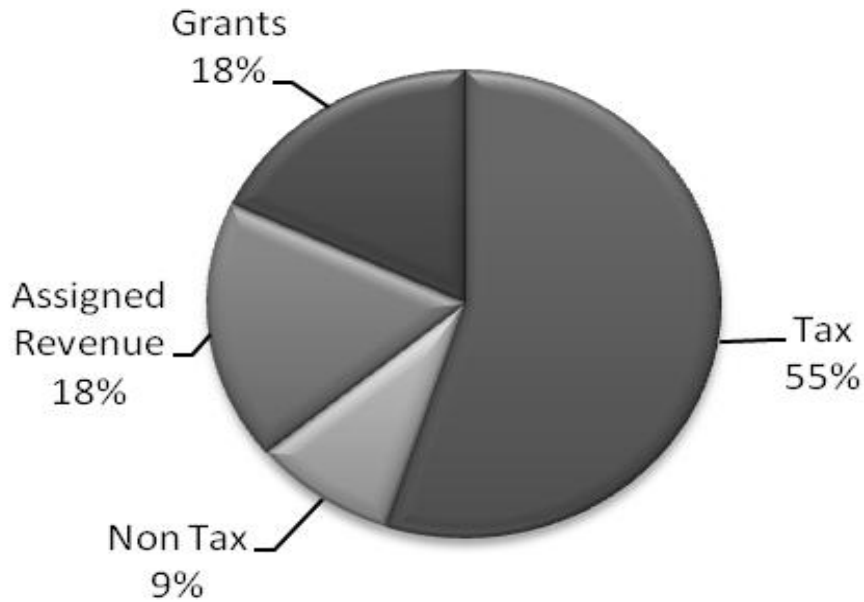




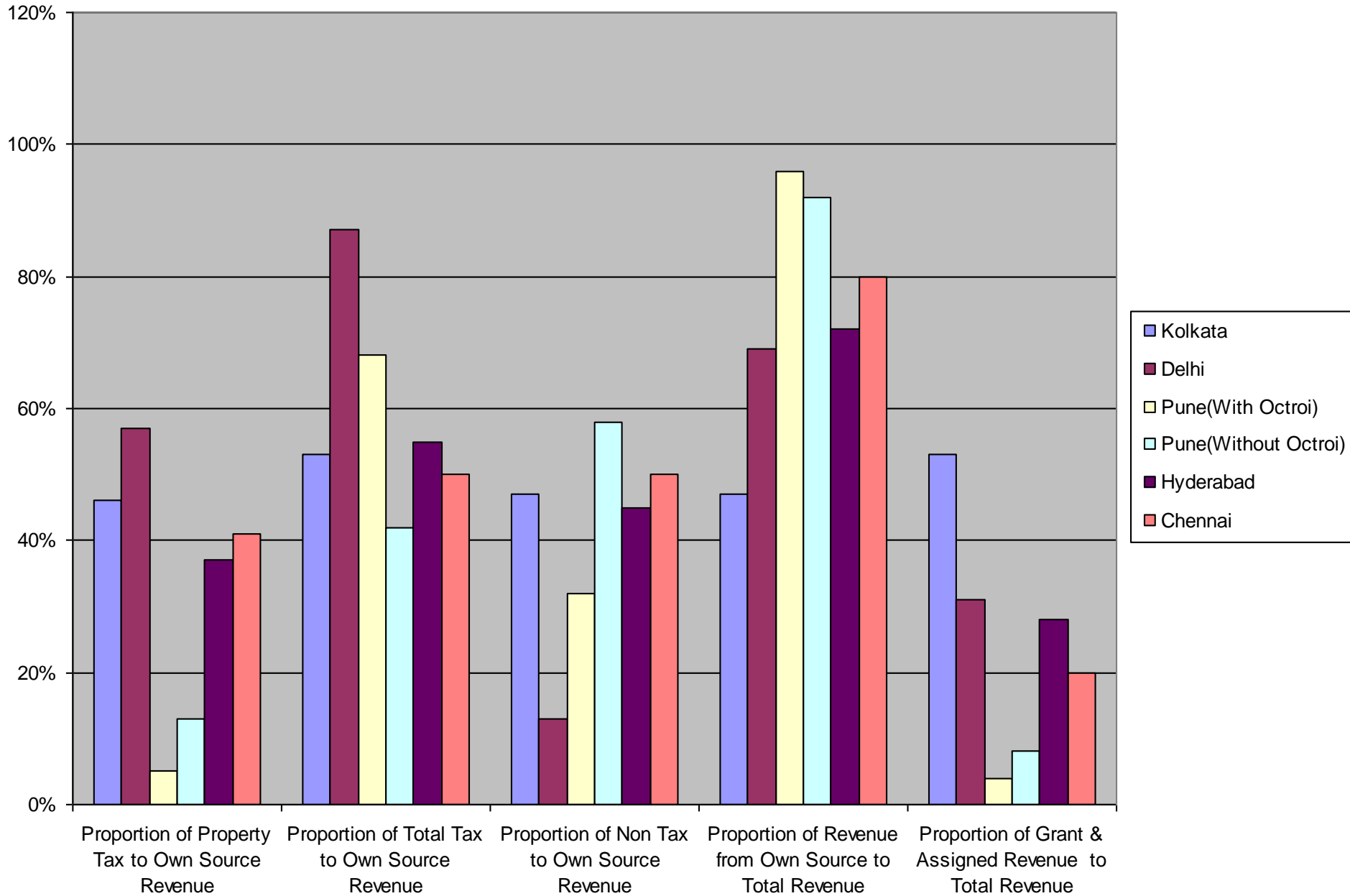
# Composition of Revenues

**Delhi (Central city)**

**Kolkata (Smaller ULBs)**



# Composition of Revenues in Five UAs of India



# Major Expenditure Heads

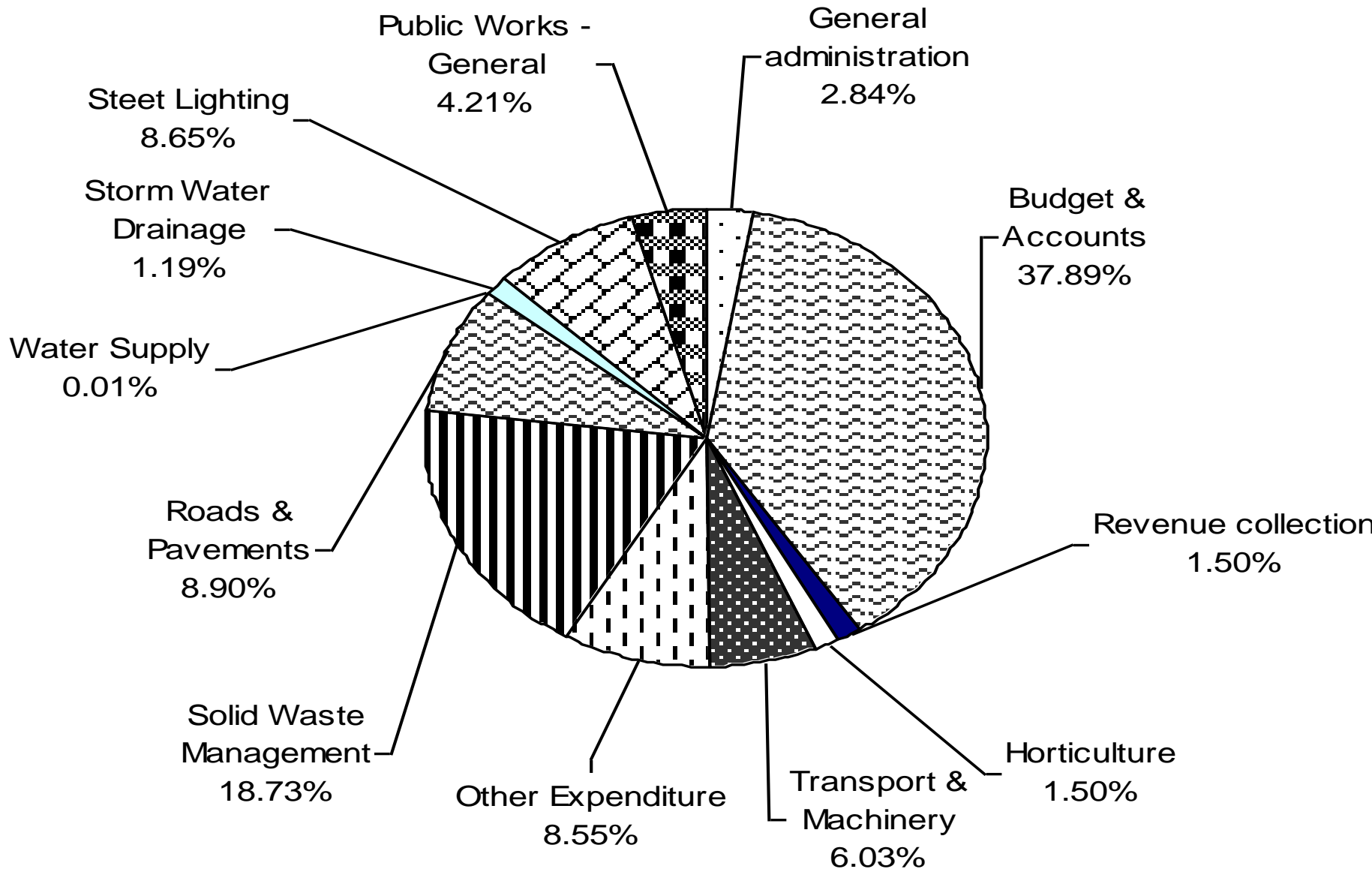
## A. Capital Expenditure

- (i) Water Supply
- (ii) Sewerage
- (iii) Solid Waste management
- (iv) roads
- (v) street Lights
- (vi) sanitation
- (vii) Education
- (viii) Health
- (ix) Fire Fighting
- (x) Slum Improvement
- (xi) Urban Poverty
- (xii) other development works

## B. Revenue Expenditure

- (i) Administrative Expenditure
- (ii) Establishment Exp.
- (iii) Salary and wages
- (iv) O&M Expenditure
  - a. Roads
  - b. Street lights
  - c. Water supply & sewerage
  - d. Solid waste management
  - e. Sanitation
  - f. Education
  - g. Health
  - h. Fire Fighting
  - i. Slum Improvement
  - j. Urban Poverty

# Expenditure Details: MCH Hyderabad



# How to Assess Financial Viability

- Assessing the Expenditure burden of Indian Cities
- Assessing the potential for revenue generation of Indian cities
- Fiscal Gap (indicator of financial viability)=Expenditure needs –Revenue Capacity
- No Comprehensive Study analysing different aspects of Fiscal Health of Indian Cities
- Comparison between Revenue and Expenditure aspects at the City level
- Meaningful numbers as Gaps (positive or normative) between the revenue and expenditure of cities
- Absence of a reliable database on fiscal variables at the city level
- Problems in formulating a methodology

# Determinants of Fiscal Health

Category	Variables (Examples)
Resource Indicators	Property Tax, Non Tax Revenue, Transfers
Demand Indicators	Households having Assets, Households Availing Banking Facilities, Literacy, Proxies for Income
Infrastructure Indicators	Electricity per 1000 population, Domestic and Non Domestic Connections per 1000 population, Non domestic Connections to total connections(%), Banks per Sq Km, Toilets per 1000 population
Service Indicators	Roads per 1000 population, Street lights per 1000 population, Households having tap water(%), Households having closed surface drainage(%)
Cost Indicators	Population, Number of Households, Household Size, Area(sq km), Density (Population /sq KM)

# Financial Viability of Mumbai

- An interesting city but not financially viable: huge unmet needs, expenditure requirements are above revenue capacities
- Dependent on Octroi: Almost half the revenues come from this source
- Has been dictating terms with Centre: Compensation to this Octroi is huge
- Rs 35,000 m :equivalent to the entire states excise income (how to compensate?)

# Alternatives to Octroi

- Local VAT
- Local business tax: Levy on business property
- Professions Tax
  - Political resistance
  - Inter-jurisdictional disparity



# Ratio of Own Revenue to Gross City Products

Urban Agglomeration	Ratio of Own Revenue to GCP (Median for all ULBs)	'Standard' Rate of Maximum Own Revenue Capacity to GCP
Hyderabad	2.7%	3.25%
Chennai	1.7%	2.5%
Kolkata	1.15%	2.5%
Delhi	1.4%	2.25%
Pune	1.5%	3%

# Some Estimations: Jharkhand

Indicators	Below 25000	25,000- 50,000	50,000- 75,000	75,000- 1,00,000	Above 1,00,000	Jharkhand
Own revenue to GCP Ratio (per cent) Median (Minimum, Maximum)	0.15 (0.07, 1.47)	0.17 (0.05 ,0.43)	0.28 (.16, 0.82)	0.58 (.13, 0.73)	0.09 (.01, 0.51)	0.17 (0.01, 1.47)
Revenue Capacity to Actual Revenue (Index) Median (Minimum,Maximum)	130 (101, 3,853)	177 (121, 1154)	210 (104, 623)	192 (135, 252)	284 (122, 702)	177 (101, 3,853)

# Financial Viability : Some Indicators

UA	Ratio Of Revenue Capacity To Total Revenue (Index)		Gap Between Expenditure Need and Actual Revenue (INR per capita)	
	Central City	Non Central City Median, (Maximum, Minimum)	Central City	Non Central City Median, (Maximum, Minimum)
<b>Delhi</b>	138		565	
<b>Chennai</b>	119	132 (188, 158)	322	376 (4,176, 235)
<b>Hyderabad</b>	179	113 (143, 103)	524	-339 (395, -1,345)
<b>Kolkata</b>		118 (277, 108)		477 (794, -134)
<b>Pune</b>	196	155 ( 288, 111)	2,453	1,828 (2,971, 21)

# Institutional Arrangements

Accountability?

# Status of SFC reports in Indian states

State	1 <sup>st</sup> SFC report		2 <sup>nd</sup> SFC report		3 <sup>rd</sup> SFC report	
	Con	Sub	Con	Sub	Con	Sub
Andhra Pradesh	Y	Y	Y	Y	Y	Y
Bihar	Y	N	Y	Y	Y	Y
Chhattisgarh	Y	Y	N		N	
Gujarat	Y	Y	Y	Y	N	
Madhya Pradesh	Y	Y	Y	Y	Y	Y
Maharashtra	Y	Y	Y	Y	Y	Y
Orissa	Y	Y	Y	Y	Y	Y
Punjab	Y	Y	Y	Y	Y	Y
Rajasthan	Y	Y	Y	Y	Y	Y
Tamil Nadu	Y	Y	Y	Y	Y	Y
Uttar Pradesh	Y	Y	Y	Y	Y	Y
West Bengal	Y	Y	Y	Y	Y	Y
<b>Jharkhand</b>	<b>Y</b>	<b>Y</b>				

# Institutional Arrangements

- Investment intensity of services
- ULBs, Parastatals, Central Governments
  - Water supply :parastatals/water boards
  - Roads: NHAI and PWD, ULBs to a lesser extent
  - Airport Authority
  - Railway network, subways, land: National Railways,Development authority
  - Port Trusts
  - Outside the control of the ULBs
- Who is answerable? Service provider or the collector of charges?

# Delhi

## Delhi: Delhi Jal Board

- DJB-metered connection/tanker
- Covers Capital and O&M for MCD
- NDMC and Cant Board (partial): Bulk Supply
- Cost Recovery: State, External Sources
- Private tankers

DDA for land development and land use,

# Hyderabad

- HMWSSB-4 ULBs including MCH covers capital and O&M
- Other ULBs: Bulk Purchase from the Board
- Planning, execution, management of network is done by the ULBs themselves
- Proposed coverage of the entire area of the GHMC by the board
- Cost Recovery: State, external sources



# Chennai

- Partial Metering /Tanker supply to network unconnected areas from the Board
- CMWSSB: O&M and Capital both covered for COC
- For other ULBs, capital expenditure is covered by the ULBs themselves
- Transfer of resources on account of augmentation/new capital work to the Board by the ULBs
- Planning, execution and management of new capital work is done by the board

# Mumbai

- MMRDA, MHADA, slum Rehabilitation authority, MSRDC for roads

# Other Services

- Solid waste management: RWA and private participation : Delhi, Pune

# Governance Issues: A political Question

- Multiplicity of controlling authorities
- Governed by different ministries
- ULB being the local self government does not enjoy bargaining power over these bodies
- Cannot make them pay or answerable to what they are doing in the jurisdiction
- Often the administrative rivalry takes over and service provision suffers.
- Political rivalry can make things worse: local level having a different party color than the state level
- Failure to prioritise

# Provision of Services

Uncertainty.....

# Service Delivery

- Norms and standards of services
  - Zakaria(1963)
  - Report of Working group III (1995)
  - Pricewaterhousecoopers 2001
  - NIUA (2007)
  - HPEC 2011
- Status of urban Services
  - NIUA 2005

# Physical Norms for Basic Services

Services	Physical Norms
Water Supply	150 lpcd
Sewerage	100per cent Population Coverage
Roads Length ( per km square)	Class I (1,00,000 and above Population) – 11.09 km, Class II(50,000-99,999 Population)- 9.89 km, Class III( 20,000-49,999 Population)- 9.10 km, Class IV (less than 20,000 Population)- 5.79 km
Street Lights	Distance between two poles:28 meters
Solid Waste Management	100per cent Population coverage and all the waste generated should be collected , treated and disposed

# Financial Norms for Indian Cities (2004-05 Prices)

Norm Category	Services	IA	IB	IC	II	III	IV
Per capita O&M requirements	Water Supply	355	179	144	144	144	144
	Sewerage	137	160	236	236	236	236
	Solid Waste Management	165	72	226	226	226	226
	Roads	1246	1803	1746	2087	2087	2087
	Storm Water Drains	12	20	15	15	15	15
	Street Lights	7	9	11	12	12	12
Per capita Investment Requirement	Water Supply	3944	1994	1601	1601	1601	1601
	Sewerage	1525	1773	2620	2620	2620	2620
	Solid Waste management	411	180	565	565	565	565
	Roads	41538	60093	58185	69576	69576	69576
	Storm Water Drains	522	877	679	679	679	679
	Street Lights	74	102	121	134	134	134



# Service delivery and shortages from norms :India

Population size class	Water Supply				Sewerage		Solid waste
	Water supply (litres per capita per day)	Norms	Water Supply to Norms index	Road length to norms	% of population covered	Norm	% of solid waste treated
Below 25,000	98.3	150	65.5	71.1		100	68.0
25,000-50,000	77.0	150	51.7	66.3		100	70
50,000-75,000	77.8	150	53.7	78.5		100	44.7
75,000-1,00,000	55.8	150	35.5	47.5		100	73
1,00,000-5,00,000	97.1	150	64.8	72.2	38%	100	75
Above 5,00,000	100	150	67	60.51	32%	100	57.46

# Service delivery and shortages from norms: Karnataka

Population Size Class	Water Supply		Roads	Solid Waste		
	LPCD	water supply to norm	Road length per sq km to norms	Collected as a percentage of generated	Treated as a percentage of generated	disposed as a percentage of generated
Below 25,000	102	68.0	71.1	85	68	68
25,000-50,000	80.6	54.7	66.3	84	70	80
50,000-75,000	80.8	53.9	78.5	85	45	78
75,000-1,00,000	59.1	39.4	47.5	84	100	95
1,00,000-5,00,000	96.3	64.2	91.2	89	46	56
Above 5,00,000	100	67	60.5	94	65	65

# Service delivery and shortages from norms: Jharkhand

Size Classes	Water Supply (Lpcd)	Index For Water Supply Adequacy (Compared with Norm of 145 LPCD)	Percentage Of Concrete/ Motorable Roads	Percentage Of Roads Covered By Street Lights	Distance Between Two Electric Poles (Meters)
Below 25,000	53.99	37.29	40	35	35
25,000-50,000	29.29	20.24	36.5	23.5	35
75,000-1,00,000	46.41	32.08	69	70	36
75,000-1,00,000	35.00	24.00	30	37.5	35
Above 1,00,000	69.61	48.10	60	48.5	31
Median (all)	46.41	32.08	40	37.5	35

# Service Delivery: Expenditure Side

Indicators	Below 25,000	25,000- 50,000	50,000- 75,000	75,000- 1,00,000	Above 1,00,000	West Bengal
Revenue Expenditure to Revenue Expenditure Norms (per cent) Median (Minimum, Maximum)	39 (28,64)	34 (17,66)	34 (24,71)	29 (20,53)	44 (8,73))	36 (8,73)

Indicators	Below 25,000	25,000- 50,000	50,000- 75,000	75,000- 1,00,000	Above 1,00,000	Jharkhand
Revenue Expenditure to Revenue Expenditure Norms (per cent) Median (Minimum, Maximum)	35 (2,148)	47 (8,86)	36 (19,52)	42 (22,54)	25 (1,103)	41 (1,148)
Capital Expenditure to Capital Expenditure Norms (per cent) Median (Minimum, Maximum)	3 (0.2,15)	3 (1,12)	3 (1,10)	5 (1,7)	2 (0.1,19)	3 (0.2,19)

Reforms :To approach an ideal pricing?

Rs 500 m central assistance during 2006-12

# Reforms : JNNURM

## Assistance

- Urban renewal
- Five basic Services
- Urban Transport
- Parking Spaces on a PPP basis
- Development of Heritage Areas
- Soil erosion and water management

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## Municipal Levels

- Accrual Based accounting
- GIS to reform property Tax
- User charges to recover O&M
- Basic Services for urban poor: Internal earmarking

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Specific purpose grants from centre to upgrade urban infrastructure

Sharing between state and Centre

Borrowing from financial institutions

# Other Components

## State Level

- Overall administrative Reforms
- Full implementation of 74<sup>th</sup> constitutional amendment

## UIDSSMT

- E governance
- Municipal Accounting
- Property Tax
- User Charges
- Poverty Alleviation