



A PTC India Presentation

15th Core Course of South Asia Forum of Infrastructure Regulators (SAFIR)

Infrastructure Regulation Issues and Challenges with focus on Ports and Airports

18th November 2015

ASCI

Hyderabad

Agenda

- South Asia – Infrastructure sector Growth story
- India Infrastructure Growth
- Bottlenecks and problem statement
- Regulation of Infrastructure sector
- Ports Sector & Aviation sector
 - Size & opportunity
 - Volume & investments
 - Policy & Incentives
 - Regulation
 - Issues & Challenges
- About PTC

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South Asia growth story

At a time when growth is falling sharply in emerging nations, as commodity prices collapse and global trade slows, South Asia has proved relatively resilient. Together, India, Bangladesh, Sri Lanka and Pakistan are now growing at an average annual pace of close to 6%, compared to 2% for the emerging world outside China.

Key drivers :

- Falling Global oil & other raw materials – SA is commodity importers
- China and Japan compete with India for influence in the Indian Ocean, they are pouring billions into new ports in Bangladesh, Pakistan and Sri Lanka.
- Positive demographic trends are potentially a big competitive advantage.
- Indian Government is reaching out to neighbours

Source: Bucking stagnation elsewhere, the quiet rise of South Asia (Blog by Ruchir Sharma -The Times of India, July 28, 2015)

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India growth story

According to Christine Lagarde , MD, IMF, just as many countries around the world are grappling with low growth, India has been marching in the opposite direction and it is the fastest growing large economy in the World .

By 2019, the economy will have more than doubled in size compared to 2009. India's GDP will exceed that of Japan and Germany combined.' There is also a view that India could become a US\$ 20 trillion economy in less than 20 years and India's share in the world economy growing to around nine percent from less than three percent now

Source: Christine Lagarde, Seizing India's moment- lecture at Lady Shri Ram College, New Delhi on March 16, 2015



Infrastructure development.....India

- India is the fourth largest economy in the world.
- One factor which is a drag on its development is the lack of adequate infrastructure.
- There are estimates suggesting that the lack of proper infrastructure pulls down India's GDP growth by 1-2 per cent every year.
- Physical infrastructure has a direct impact on the growth and overall development of an economy.
- While strategies to accelerate economic growth did anticipate the need for faster development of infrastructure as well, the fast growth of the Indian economy in recent years has placed increasing stress on physical infrastructure.

Source: Geethanjali Nataraj , Professor , Observer Research Foundation

- Sectors such as electricity, railways, roads, ports, airports, irrigation, and urban and rural water supply and sanitation, continue to experience the pressure of rising demand for services even as they suffer from a substantial initial deficit.
- The goals of inclusive and high level of economic growth can be achieved only if this infrastructure deficit is overcome.
- To develop infrastructure, there is a continuing need to revisit the issues of budgetary allocation, tariff policy, fiscal incentives, **independent economic regulation**, private sector participation and public private partnerships to ensure that required infrastructure development takes place.

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India growth story...Roadblocks

There are, however, roadblocks in our pursuit for higher growth that we should be mindful of. These are in the nature of slow progress on structural reforms in respect of supply bottlenecks, weak investment demand, vulnerabilities arising out of erratic monsoon, stalled projects , regulatory hurdles which need to be put back on track

Public sector's capacity in financing infrastructure is understandably constrained necessitating the private sector to play a greater role.

There are, however, multiple challenges in channelizing private sector investment into infrastructure

Source: keynote address delivered by Shri Harun R Khan, Deputy Governor at the Infrastructure Group Conclave of the SBICAP on Aug 8,2015



Infrastructure - The Problem Statement

- **Ports** - Draft constraints, Berth Productivity and Rail/ Road connectivity
- **Airports** - Inadequate capacity in Runways and Aircraft handling .Congestion in Parking Space and Terminal buildings .Poor maintenance
- **Roads**- 65 % of freight and 85 % of passenger traffic is carried by roads.NH constitutes 2% of network but carries 40% of traffic
- **Railways** - Congested Routes .Around 804 out of 1219 sections operating with capacity utilization > 80% .Low average speeds (Freight - 25.9 kmph: Mail/ Express – 50.6 kmph)
- **Power** - 3.2% peaking deficit and 2.1% energy deficit . AT & C losses 25.38%. Transmission bottlenecks. Unplanned Interruptions and poor customer service

Investments for Infrastructure – 8.2% of GDP @ US \$ 1 Trillion for 2012-17

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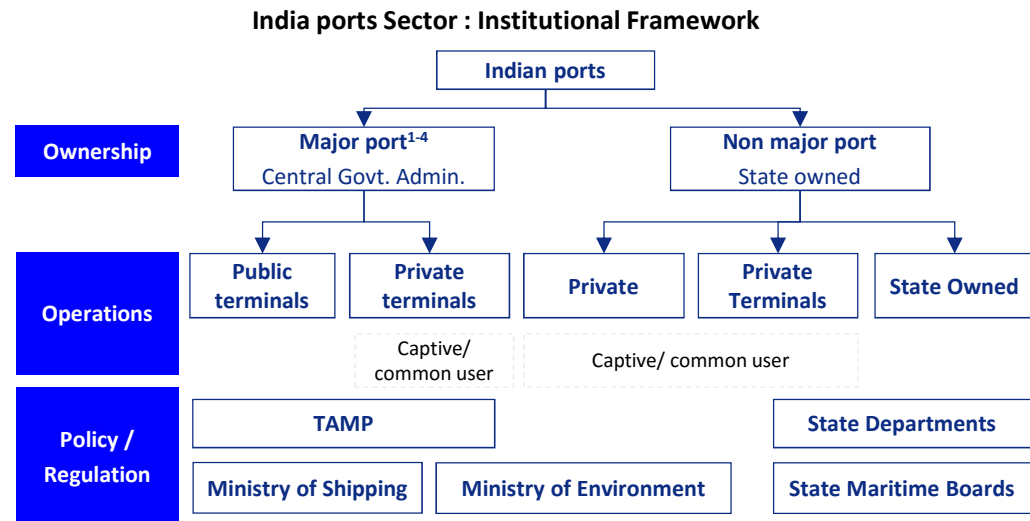
Objectives of regulation.....

- Encourage new and sustained efficient investments ...world class facility/infrastructure
- Give adequate returns to investors/promoters/developers on a sustainable basis
- Tariffs to be market linked & affordable
- Improve efficiency , transparency & accountability
- Improve customer service standards & quality to global standards
- Promote inter & intra competition in the relevant sector
- Align with National development goals/objectives
- Honor environmental and safety standards
- Inculcate best working environment
- Complaints redressal mechanism

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The Indian port sector is principally categorised into Major and Non-major or Minor ports



1. 11 Major Ports are run through Major Port Trusts . The Trusts are autonomous bodies under the Ministry of Shipping and hence are under the administrative purview of Central Govt. although they are empowered to take decisions independently
2. Ennore Port is the only CORPORATE PORT under the Central Government. The other 11 Major Ports are Port Trusts
3. Together, these 12 Major Ports are those notified under the Major Ports Trust Act, 1964
4. Haldia and Kolkata are 2 separate ports but are under the same port trust i.e. Kolkata Port Trust. Hence, while the map depicts 13 port locations, there are effectively 12 Major Ports (11 Trusts + 1 Corporate entity) Source: Research, KPMG analysis

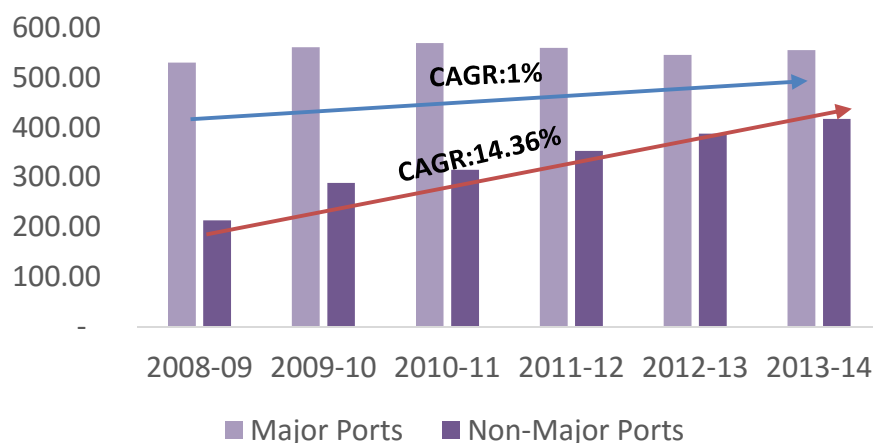


All ports are owned by the government and private sector is allowed to participate through concession or license agreements only

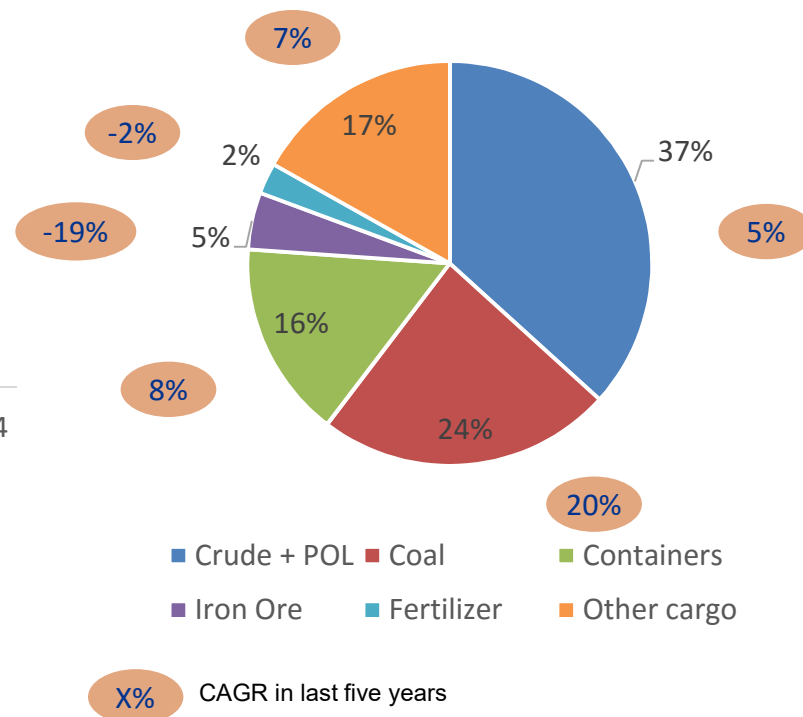
- A total of 12 Major ports and ~187 non major ports (earlier referred as minor ports) in the country (many of which are undeveloped locations with little or no infrastructure)
- Major ports are under the purview of the Central Government whereas non major ports are under the respective state governments or maritime agency of the states.
- The waterfront is principally a sovereign asset and hence owned by either the Central Govt. or State Govt. Hence, all sites are either under a Major Port or a Minor port / State Govt. purview
- No private company can own the waterfront in perpetuity and is typically provided access on contract basis to “Build, Own, Operate, Transfer ” and variants thereof (BOT, BOOST, DBFOT etc.). port & maritime assets for a pre-specified period of time (say, typically 30 years or 30 years and extensions of 10 + 10 years etc.)
- Development and/or operational rights are provided to a private player as follows:
 - Major port – via license agreement
 - Non -major port – via concession agreement
- Major ports typically offer terminals within the ports to private developers, selected through an open competitive bidding process and the tariffs for these terminals are regulated by the Tariff Authority for Major Ports (TAMP). Though this arrangement, major ports are moving into a landlord model.
- Non major ports are offered by the state maritime agency to private developers on concession basis with flexibility on tariffs and development plans. In Gujarat, non major ports developed and operated by GMB are now also adopting the landlord model and private sector is being encouraged for participation in terminal development.
- Captive jetties/terminals are also provided to companies in major and non major ports

Although called minor/Non-major, ports, they have grown at a rate of 14% in the last six years and now have 43% share of the total traffic

Share of Traffic between Major and Non-Major Ports



Commodity-wise traffic distribution 2013-14



Source: IPA Handbook 2013, Working group report for 12th plan, KPMG analysis

Implementation of PPP port projects in Indian have faced multiple challenges on account of policy guidelines and lack of supporting infrastructures

Project profitability

- **Aggressive bidding:** Bidders in case of JNPT and Ennore container terminals quoted unviable revenue share, and subsequently pulled out
- **Low revenue share** quoted by bidders, were not acceptable to Chennai and Visakhapatnam Port Trusts for container terminal PPP projects

Legal challenges and Government clearances

- Delay/lack of **government clearances** for land, environment, security, coastal zone etc. caused delays in construction and expansion of ports which are **Conditions Precedent for PPP developer**
- Typical examples of terminals suffering on account of these issues are Essar's Paradip terminal, Rewas and Dhamra ports

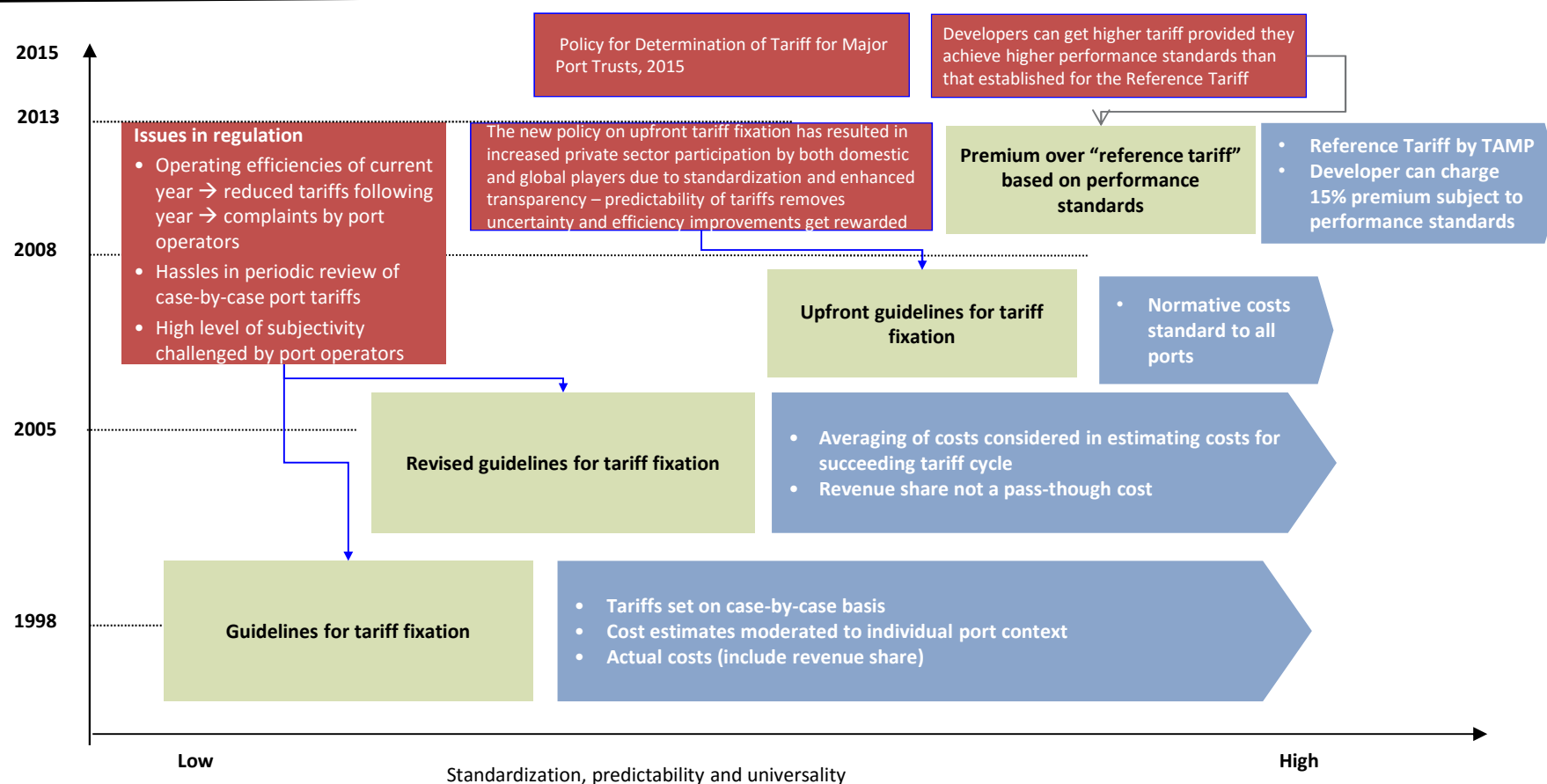
Inadequate development of supporting infrastructure

- **Delayed investments** by state/central governments **in supporting infrastructure** such as deeper channels, railway and road projects, delayed land acquisitions
- Private ports have attempted to overcome this by taking own/private initiatives in building railway projects etc.

Consistency and clarity of policy and approach

- Tariff at major ports is determined on a cost plus basis under the purview of TAMP, preventing the terminal to charge the market linked prices
- There has been significant uncertainty on various other policies such as competition policy and common user vs. captive policy. Relaxation on cabotage policy also has been a long pending demand for promoting ports sector
- Lack of redresal mechanism in case of Force Majeure or external risks
- Non standard Concession Agreements for Minor ports

Tariff Regulation: Aim to progressively move towards a market-linked framework for tariffs



Source: Report of national working group on normative cost based tariff for container related charges

- TAMP began fixing tariffs from 1998 and has since modified its model for computing tariffs to align with stakeholder requirements and enhance private sector participation.
- TAMP has introduced three different tariff regimes till date – in 1998, 2005, 2008 and 2013

Source: Research, KPMG analysis

- The market conditions for provision of port services have undergone significant change since liberalization in the Port sector and expansion of port infrastructure following the introduction of Public Private Partnerships at Major Ports since 1996.
- Non-major ports have expanded rapidly and now have a substantial presence which accounts for about 42% of the cargo share.
- Further, there is no parity in the regulation mechanism between the major port trusts and the non-major ports.
- Whilst tariffs of Major Port Trusts are regulated following cost plus return approach, non-major ports are not covered by any tariff regulation.
- A need is, therefore, felt to give flexibility to the Major Port Trusts to react to the market forces and also to encourage Major Port Trusts for better performance within the ambit of Major Port Trusts Act, 1963.



Tariff Regulation: Policy for Determination of Tariff for Major Port Trusts, 2015

- Each Major Port Trust will assess the Annual Revenue Requirement (ARR) which is the average of the sum of Actual Expenditure as per the final Audited Accounts of the three years plus Return at 16% on Capital Employed including capital work-in-progress obtaining as on 31st March 2014, duly certified by a practising Chartered Accountant/ Cost Accountant.
- Actual Expenditure will be the total expenditure as reflected in the Audited Annual Accounts of the Major Port Trusts, subject to following adjustments and any other adjustments to be decided by TAMP in consultation with all the Major Port Trusts:
 - (i). All expenses relating to Estate related activity are to be excluded.
 - (ii). Interest on loans is to be excluded.
 - (iii). Only 1/5th of one time expenses like arrears of wages, arrears of pension/ gratuity, arrears of ex-gratia payments arising out of wage revision etc. are to be included. Similarly 1/5th of the contribution to Pension Fund would also be considered for the calculation of ARR.
 - (iv). Management and General Administration Overheads subject to a cap of 25% of aggregate of the operating expenditure and depreciation is only to be considered allowed during the next year.

- The SOR will be indexed annually to inflation to the extent of 100% of the variation in Wholesale Price Index (WPI) announced by the Government of India occurring between 1st January 2014 and 1st January of the relevant year. Such automatic adjustment of SOR will be made every year and the adjusted SOR will come into force from 1st April of the relevant year to 31st March of the following year
- The Major Port Trusts shall also commit Performance Standards for cargo related services in terms of average ship berth day output, average moves per hour in case of container handling. For vessel side services, the port shall prescribe Performance Standards in terms of average turnaround time of vessels and average pre-berthing time of vessels and any other parameter which is found relevant by the Port.
- 3.2 The indexation of SOR as provided in Clause 2.8 will be subject to achievement of Performance Standards committed by Major Port Trusts. If a particular port does not fulfil the Performance Standard, no indexation would be allowed during the next year.

Issues with TAMP: Tariff Authority for Major Ports

Tariff Determination Process

- Issue with formula, norms for determining tariff and adequate representation of industry stakeholders prior to fixing tariff

Tariff is a ceiling

- Developer under previous tariff regimes cannot charge premium or higher than TAMP tariffs even if market is willing to pay higher
- Disincentive to developer to continuously enhance efficiency to end user as no tariff upside exists – loss to economy & port competitiveness ultimately
- No clear mechanism to address external risks such as regulatory changes etc.

Exclusion of Stevedores

- Various activities in a Major port is regulated – however, stevedoring in Port Trust Terminals (non-PPP) is unregulated and this forms a large component of port tariff. Hence, regulation controlling only a limited part of the port charges and therefore incomplete

Lack of Level Playing Field

- Non Major ports have limited or no tariff regulation compared to Major ports where as user is free to choose either. Hence, no level playing field. Non major ports can charge higher/market linked rates whereas Major ports/ PPP terminals are capped
- Stevedoring in PPP terminals is regulated by TAMP whereas Stevedoring in non-PPP terminals are not regulated

Ports Sector...Size & Opportunity

- Coastline of more than 7,500 km
- Encompasses over 200 ports (13 Major ports)
- Territorial waters give way to most of the cargo ships that sail between East Asia and America, Europe and Africa

Rising need for robust port infrastructure, strong growth potential, favorable investment climate & sops by State Governments provide private players immense opportunities to venture into the sector.

Source:IBEF

Ports Sector...Volumes & Investments

- In FY15, major ports handled 581 & non-major ports 471 MMT
- Ports handle almost 95 per cent of trade volumes
- Cargo capacity in India expected to increase to 2,490 MMT by 2017.
 - Major ports and non-major ports expected to increase to 943 & 815 MMT by FY17
- Given the positive outlook, proposed investments in major ports are expected to total US\$ 18.6 billion by 2020, while those in non-major ports would be US\$ 28.5 billion.

Source:IBEF

Ports Sector...Policy & Incentives

- FDI of up to 100 per cent under the automatic route for projects related to the construction and maintenance of ports and harbours.
- 10-year tax holiday in the business of developing, maintaining, and operating ports, inland waterways, and inland ports.
- Converting 12 public port trusts in India into corporations under the Companies Act -to bring in greater efficiencies in operations and raise funds for growth.
- Sagar Mala - to develop Ports, hinterland and efficient evacuation through road, rail, and inland and coastal waterways resulting in Ports becoming the drivers of economic activity in coastal areas.

Source:IBEF

Ports Sector...Regulation

- PPP Terminals in Major ports on Lease and Minor ports on concession basis
- Selection on competitive bidding for highest revenue share today. Previously Minor ports were awarded through negotiated /MOU route
- Regulated tariffs in Major Port PPP Terminals wherein tariffs are cost-plus with a 16% ROE built in- although the revenue share NOT being a pass-through- reduces developer returns; alternately the PPP Concessionaire explores ways & means to enhance value in the terminal within the overall tariff ceiling
- Non-regulated tariffs in Minor ports but are loosely regulated through competition from Major ports that offer a regulated /capped tariff.

Ports Sector...Regulation

- Lack of monitoring of performance standards and/or sufficient forum for customer grievances. If at all, where sufficient competing capacity is present, the market forces due to over supply tends to determine standards and adherence towards customer satisfaction
- Institutionally, ports are responsible and empowered only within port limits with only influencing/ coordinating role for evacuation or hinterland linkages. Therefore, even if the terminal or port performs to its requisite standards, the bottlenecks outside the port/ upstream can impair the customer experience thereby causing reputation issues or perception about port efficacy.

Source:IBEF

Tools used by different bodies for regulation of Ports

Regulator	Regulatory Tools	Examples
Sector ministry	Performance contracts Directives Policy statements Informal day-to-day contacts	Italy, France
Shareholder ministry	Statement of corporate intent Shareholder compact Budget approval	New South Wales, Kenya
Competition Commission	Ex-post investigations Ex-ante approvals	EU
National Audit Office	Expenditure reviews One-off investigations	Portugal
Port authority	Concession agreements Lease Operating licences Participation in JVs	Rotterdam, New York, Tema
Port regulator	Tariff regulation Market access requirements Performance standards Compliance rules Adjudication of complaints	India, Brazil
Multi-sectoral regulator	Similar to Port Regulator	Peru, Tanzania, Nigeria, Victoria

Source: OECD Regulatory policy measuring -regulatory performance-Cary Coglianese

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Aviation Sector...Size & Opportunity

- India's civil aviation industry is on a high-growth trajectory
- Aims to become 3rd largest market by 2020 and largest by 2030
- Civil Aviation industry has ushered in a new era of expansion, driven by factors such as LCCs, modern airports, FDI in domestic airlines, advanced IT interventions and growing emphasis on regional connectivity
- India is the ninth-largest civil aviation market in the world, with a market size of around US\$ 16 billion.

The world is focused on Indian aviation – from manufacturers, tourism boards, airlines and global businesses to individual travellers, shippers and businessmen

Over the next five years, domestic and international passenger traffic are expected to increase at an annual average rate of 12 per cent and 8 per cent, respectively, while domestic and international cargo are estimated to rise at an average annual rate of 12 per cent and 10 per cent, respectively

Source:IBEF

Aviation Sector...Volumes & Investments

- Total passenger traffic stood at a 190.1 million in FY 2015
- Passenger traffic increased by 12.47 per cent in FY 2015
- During FY 2015, domestic freight traffic at 0.98 million increased by 17.38 per cent while international freight traffic at 1.5 million increased by 7.08 per cent compared to FY 2014
- Investments to the extent of US\$ 110 billion are envisaged by 2020. About US\$ 30 billion for development and sprucing up of existing airports and US\$ 80 billion for building new fleets is being estimated.

Aviation Sector...Policy & Incentives

- Easing FDI norms in certain segments in the civil aviation sector, the government raised investment limits to 100% from 74%, thus allowing foreign general aviation charter operators and large ground handling companies to set up their own bases in India.
- The government has also allowed 49% FDI for regional air transport services, which is seen as an attempt to give a push to government's regional connectivity plan that has been announced in the draft civil aviation policy.

Source:ET

Aviation Sector...Regulation

- Airports Economic Regulatory Authority (AERA) was formed by an Act of Parliament on 5th Dec. 2008 AERA's principal functions are to determine tariffs and other aeronautical charges (Development Fee, User Development Fee etc) for major airports (with annual traffic > 1.5 million pax or any other airport designated by the Central Government)
- AERA has issued guidelines for regulation of aeronautical tariffs at major airports (2011)
- **Airport operators , airport service providers** such as *ground handlers cargo handlers* and *fuel service providers* have to get their user tariffs approved by AERA
- AERA determines tariffs for each “control period” i.e. a period of 5 years.
- Based on review of the tariff proposals filed by the regulated entities, AERA issues a Multi-Year Tariff Order (MYTO). The regulated entities also have to file Annual Tariff Proposals (ATP) to AERA based on the MYTO

Source: KPMG

AERA's mandate

The Airports Economic Regulatory Authority (AERA) is a statutory body constituted under the Airports Economic Regulatory Authority of India Act, 2008

The statutory functions of AERA are:

- **To determine the tariff for the aeronautical services** taking into consideration
 - Capital expenditure incurred and timely investment
 - Services provided, its quality and other relevant factors
 - Cost for improving efficiency
 - Economic and viable operation of major airports
 - Revenue received from services other than the aeronautical services
 - Concession offered by the Central Government or memorandum of understanding or otherwise
 - Any other factor which may be relevant for the purposes of this Act

Source: KPMG

AERA's mandate

- To determine the amount of the Development Fees in respect of major airports
- To determine the amount of the Passengers Service Fee
- To monitor the set Performance Standards relating to quality, continuity and reliability of service
- To call for such information as may be necessary to determine the tariff under clause above
- To perform such other functions relating to tariff, as may be entrusted to it by the Central Government or as may be necessary to carry out the provisions of this Act

Source: KPMG

AERA Overview

How will AERA calculate tariffs? (1/2)

- Three principal sources of revenue for an Airport Operator:
 - **Aeronautical Revenue**, coming from core and essential business area like landing, housing and parking charges
 - **Non - aeronautical or Aero- Related Revenue**, coming from commercial activities related to Airport like Duty Free, Car parking, F&B, retail etc.
 - **Non airport related Revenues** - which don't benefit from Airport operations like Golf Course, Trade Fair Centre, Entertainment centre etc

For mature airports, non-aeronautical and non-related revenues constitute a significant portion of total airport revenues (about 50-60%)

In India, despite a growing consumerist society, non-aero revenues is still around 30%. **But this is likely to change**

Source: KPMG

AERA Overview

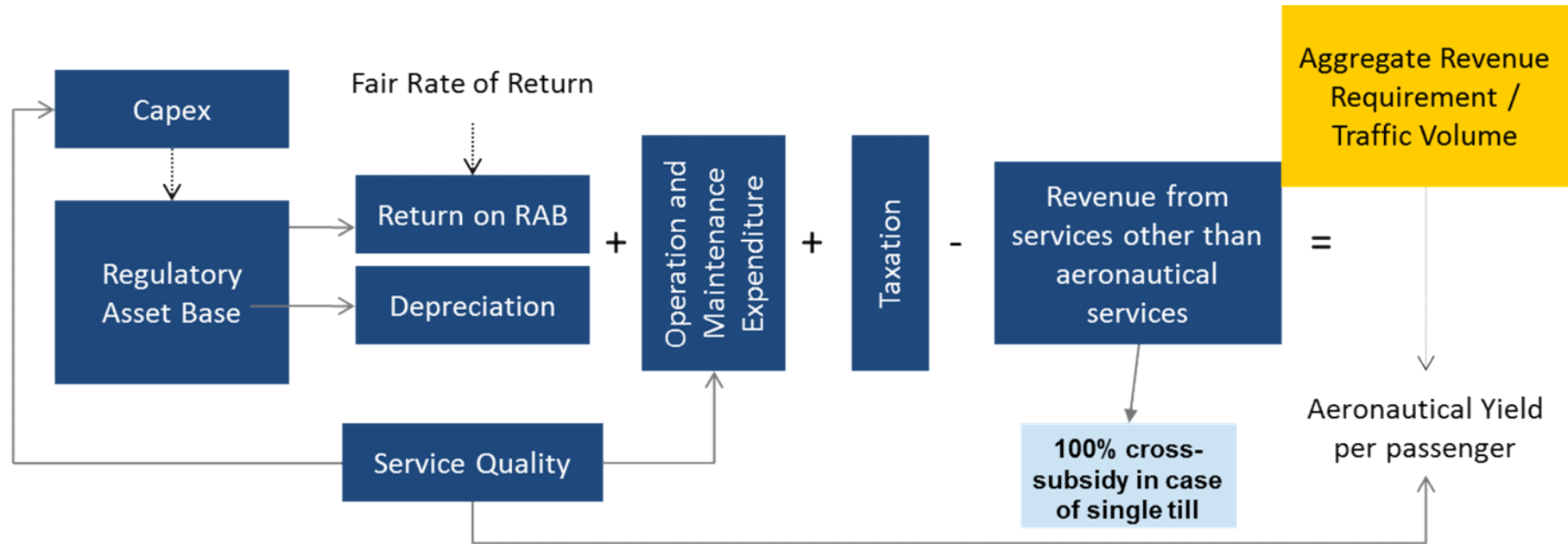
How will AERA calculate tariffs? (2/2)

- AERA, follows a “Single Till” approach while determining the tariffs for **major** airports other than Delhi and Mumbai
 - Single Till means that all the revenues from Aero, Non-aero and in some cases Non airport related businesses, as long as they are operated within the Airport site, will be pooled together to determine the Total Revenue of an Airport

Till	Aeronautical Revenue	Non-Aeronautical Revenue
Single	✓	✓
Hybrid / Shared	✓	✓ (partial)
Dual	✓	✗

Source: KPMG

Tariff Determination – The Building Block Approach



$$ARR = RAB \times FRoR + O\&M \text{ Expenses} + Dep + Taxes - \text{Non-Aero Rev.}$$

Source: KPMG



Key Provisions of Order No.13 of AERA on Treatment of RAB

- **Initial RAB = Original Cost of Fixed Assets – Acc Dep – Asset Value Adjustment – Land Value Adjustment (LVA)**
- **Assets can be excluded from RAB by operator, if it does not substantially relate to activities/ services provided at an airport – MRO??**
- **Value of Excluded Assets to be computed as HIGHER of**
 - **Sum of Depreciated Replacement Cost of asset + LVA**
 - **Sum of Book Value of Asset + LVA**
 - **Sum of transfer value of asset + LVA**

Source: KPMG

- Tariffs to be determined for 5-year period – Control Period
- ARR to be determined year-on-year for each control period
- RAB for each year will be average of RAB for t and t+1th year
- **No adjustments for RAB and OM variations** within control period
- Mandatory/ Statutory costs allowed as pass- through
- Adjustments to ARR and Yield to be made y-o-y based on actual **traffic volumes**, changes in **WPI** and changes in **service quality**
- Adjustments for Over-recovery and Under-recovery on t+2 basis
- Revenues and costs to be determined on accrual basis
- **Non-aero revenues to include revenue share, royalty and dividends earned by Airport Operators** from independent service providers
- AERA will proposals for levy of development fees (ADF and UDF) requirements based on the specific circumstances of each Airport and legal provisions

Source: KPMG



Three Stage Process in Tariff Filing

Step1: Filing of Multi-Year Tariff Proposal (MYTP)

Yield per passenger = $\text{ARR} / \text{Volume (Passengers/ Cargo)}$ escalated by WPI y-o-y
– determined in PV terms (discounted at FRoR)

AERA issues a Multi-Year Tariff Order (MYTO)

Step 2 : Filing of Annual Tariff Proposal

Determination of Estimated Maximum Allowed Yield (EMAY) + Correction Factor based on changes in traffic volume beyond a band, mandated and statutory OM costs and WPI

AERA issues an Annual Tariff Order (ATO)

Step 3: Filing of Annual Compliance Statement

Determination of Actual Maximum Allowed Yield (AMAY) + adjustments thereof y-o-y based on Actual Yield per passenger

Source: KPMG

Service Levels Expected – Objective parameters

Airport Core Process

- Security Check – waiting time
- Immigration – checking time in queue
- Check – in – max queuing time
- Baggage delivery (domestic / international)
- Passenger Arrival (domestic / international)

Airport Facilities

- Parking Bays - % time available
- Passenger Boarding Bridges
- Availability of flight information
- Escalators, lifts and travelators
- Automated services
- Baggage Trolleys
- Facilities for disabled passenger

Customer Service

- Handling of complaints - % of complaints responded within specified time
- Response to phone calls

Each of the parameter has a specified benchmark against which they will be compared

It's a zero-one game, either you meet the requirement or you don't meet it

Monthly percentage rebate for not meeting each parameter is 0.25% per parameter not met, with a maximum monthly rebate of **1.5%**

Source: KPMG

AERA Overview

Service Levels Expected – Subjective parameters

- Overall satisfaction with the airport
- Ground transportation to/from airport
- Availability of parking facilities
- Value for money of parking facilities
- Availability of baggage carts/trolleys
- Waiting time in check – in queue/line
- Efficiency of check – in staff
- Courtesy and helpfulness of check – in staff
- Waiting time at passport/personal ID inspection
- Courtesy and helpfulness of inspection staff
- Courtesy and helpfulness of security staff
- Thoroughness of security inspection
- Waiting time at security inspection
- Feeling of being safe and secure
- Ease of finding your way through the airport
- Flight information services
- Walking distance inside the terminal
- Ease of making connections with other flights
- Courtesy and helpfulness of airport staff
- Availability of bank/ ATM facilities/ money changers
- Shopping facilities
- Value for money for shopping facilities
- Internet access / wi-fi
- Business / executive lounges
- Availability of washrooms
- Cleanliness of washrooms
- Comfort of waiting / gate areas
- Cleanliness of airport terminal
- Ambience of the airport
- Passport / personal ID inspection
- Speed of baggage delivery service
- Customs inspection

Monthly percentage rebate for not meeting “Overall satisfaction with the airport” with an score of 3.5 or 3.75 will result in **2.5%** monthly percentage rebate

Source: KPMG

Aviation Sector...Issues & Challenges

- Cost of equity – airports operators have argued for COE between 22% and 25%. Independent studies have indicated CoE for airports to be in the range of 18-25%
- Cost of RSD – operators have argued that this be treated as debt or quasi-equity and compensated accordingly. AERA has not allowed any return on RSD utilized for project funding in the past
- Single till approach – BIAL and GHIAL have argued that single till framework was not intended in the project concession agreements and that this approach will impact their returns adversely. MoCA has reportedly directed AERA to consider a 30% shared-till approach for GHIAL.
- The new draft civil aviation policy (2015) proposes hybrid till framework for determination of tariffs at all future airports i.e. 30% of non-aeronautical revenue will be used to cross-subsidize aeronautical charges.
- MoCA has approved 30% shared till framework for Greenfield airports at Navi Mumbai (NMIA) and Goa (Mopa). Bid process for both airports is underway.

Source:KPMG

Evaluating the performance of regulations and regulatory policies (Regulation- Behaviour - Outcomes)

Sr No	Core elements to measure impact	Electricity Sector	Ports Sector	Aviation Sector	Comments
A1	Regulatory Institution				
A2	Regulatory policy				
A3	Regulation				
B	Implementation				
C	Behavioural change				
D1	Intermediate outcomes				
D2	Ultimate outcomes				

Source: OECD Regulatory policy measuring -regulatory performance-Cary Coglianese

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PTC: Genesis & Objectives



PTC India Ltd. (PTC), was established in 1999 by Govt. of India as a Public-Private Initiative

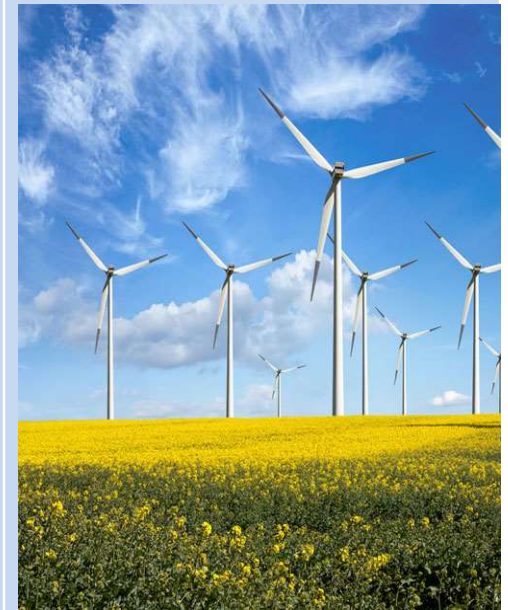


Board with eminent persons from the Government and Industry



Established with primary focus on

- promoting power trading to optimally utilize existing resources
- attract viable investments in the power sector on the strength of multi-buyer model
- creating a Power Market in India and the neighboring countries



Promoted by public sector majors in the industry : **NTPC, POWERGRID, PFC** and **NHPC**

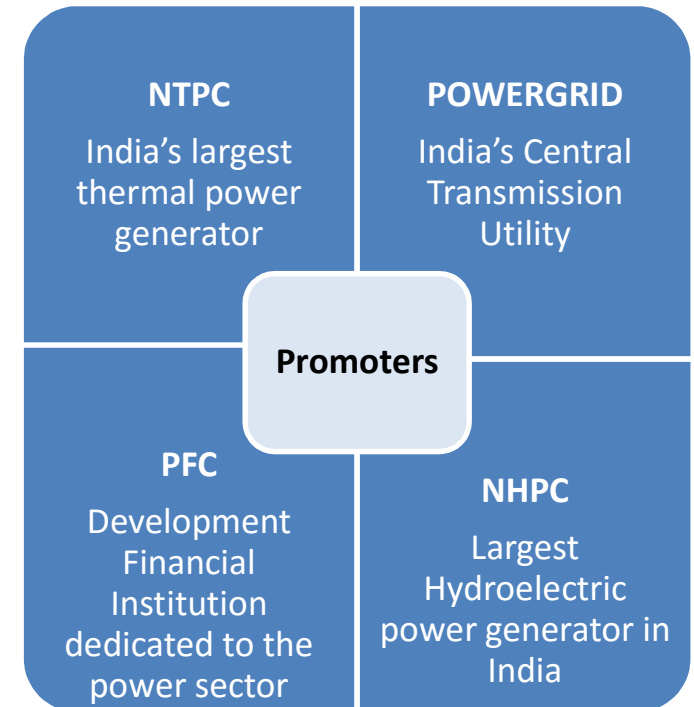
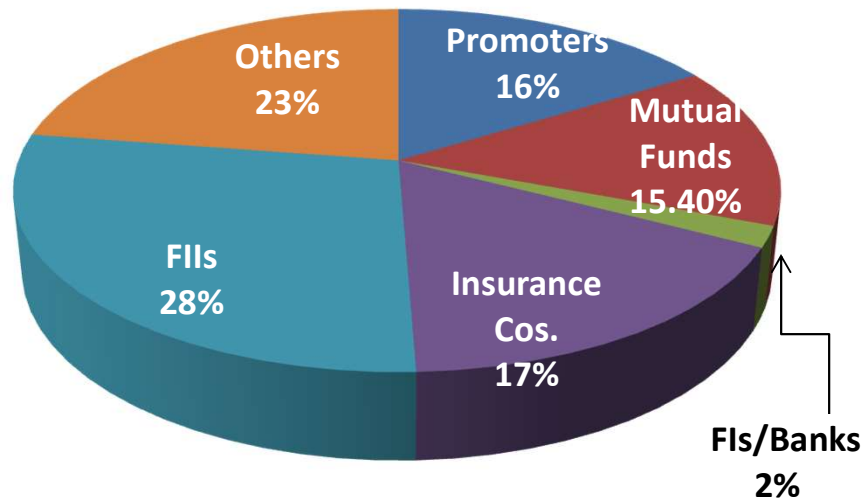


Stock listed on BSE and NSE since 2004; widely held by institutions

PTC: Shareholding

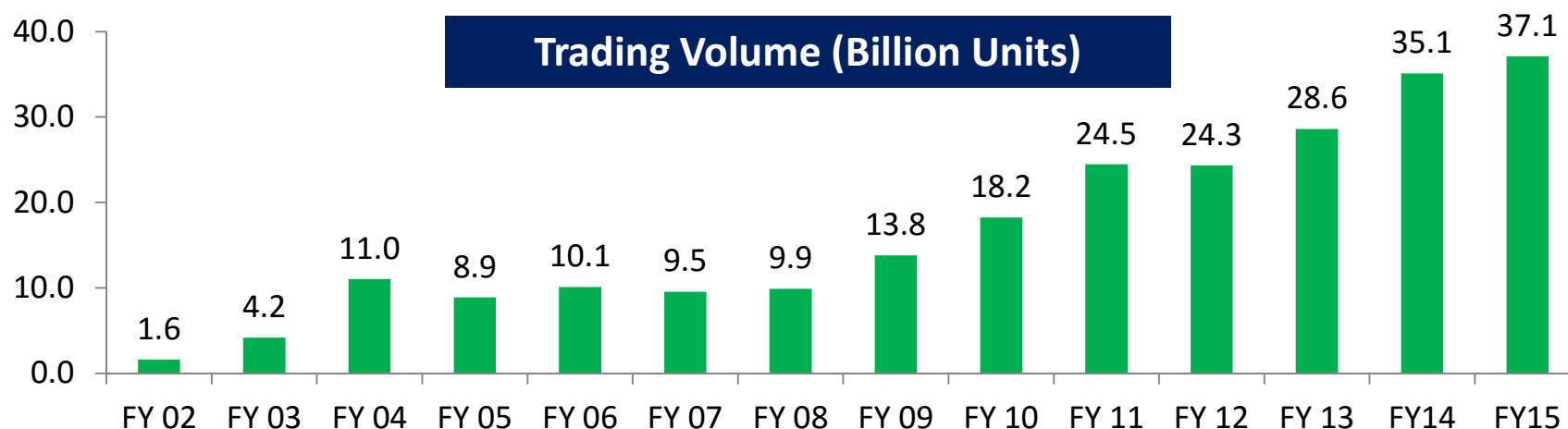


As on 31.03.2015

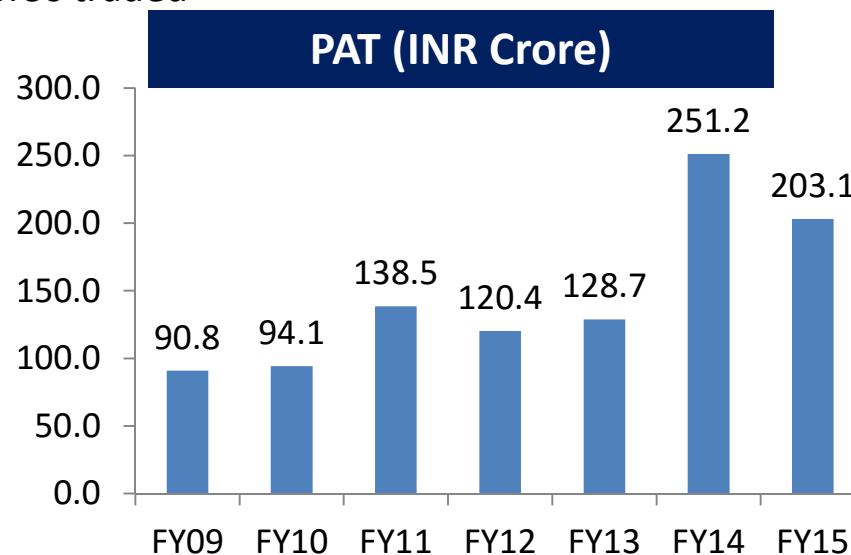
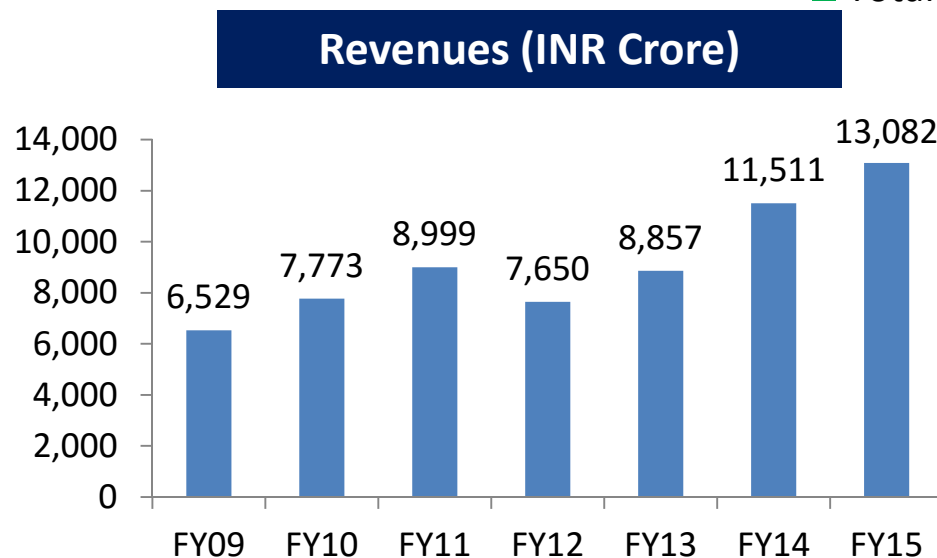


- Diversified shareholding
- Board with eminent persons from Government and Power Sector
- Professionally managed

PTC: Growth



■ Total MUs traded



- About 237 BUs traded since inception
- About 81,000 crore (USD 13 billion) worth of electricity traded since inception

Thank You