

Competition and Regulation in India

2009

Leveraging Economic Growth
Through Better Regulation

Edited by
Pradeep S Mehta



#0902

Reflections

“I express my pleasure and deep satisfaction in supporting CUTS and CIRC in studying the regulation and competition scenario in India through this report and its predecessor, Competition and Regulation in India, 2007. The report comes out with an important recommendation, that there is a need to strike a balance between the unimpeded functioning of the market and regulation, as well as effect coordination between various national level regulators”.

– Creon Butler

UK's Deputy High Commissioner to India

“I congratulate CUTS on taking such an important initiative in competition issues; this report would be an important milestone in the whole debate on competition and regulation in India. There is a need to create awareness regarding the Competition Commission of India (CCI) and its functions and the commendable work being done by CUTS. Since industry is not only a producer but also a consumer of goods and services, it benefits from competition. Regulation should be done in a measured fashion and a greater space for competition is required. I congratulate Pradeep S Mehta, CUTS International for this important report”.

– Dhanendra Kumar

Chairman, Competition Commission of India (CCI)

“Independent regulation, shorn of government interference, has always been important in reconciling consumer and producer interests; its importance has been enhanced with the growing prominence of the private sector in the Indian economy and the increasing use of public-private partnerships as a vehicle for economic development and change. Thus, I hope that this report is able to activate interest in this area and lead to some solid action in the near future”.

– Montek Singh Ahluwalia

Deputy Chairman, Planning Commission of India

“...regulatory authorities were created when the Indian polity felt that political ministers could not deliver. Therefore, the rationale for the creation of regulatory authorities got entangled in an inevitable conflict with political ministers. The government should distance the regulatory authorities from their political ministers — something that is also recommended in this report. The report is well written and importantly it comes out with practical recommendations, which must be adopted by the government”.

– Pradip Bajjal

Former Chairman, Telecom Regulatory Authority of India

“Regulation has potential benefits and limitations. It can facilitate or limit competition and innovation. And government can help or hinder regulatory bodies. This study sheds valuable light on the many and subtle factors involved in India. It deserves careful study”.

– Stephen Littlechild

Fellow, Judge Business School, University of Cambridge

“...there could not be a more appropriate time for this report to be published. Given the recent financial crisis, regulation plays an important role in checking market failures. The government at the Centre has made regulation an important issue to be analysed and therefore, one hopes that the policymakers will take this report as seriously as it deserves”.

– Vijay Kelkar

Chairman, Finance Commission

“As India transforms rapidly from a ‘public sector & government dominated’ economy to an accelerating open economy increasingly integrated with the rest of the world, the public understanding of market forces and the need to regulate them by ensuring fair competition, must keep pace. In other words, consumer activism based on awareness and information must drive the evolution of fair competition in the economy. The present volume encapsulates the pioneering work that CUTS is doing in that direction”.

– Vijay Mathur

Former Chairman, Airports Authority of India

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Leveraging Economic Growth
Through Better Regulation



Competition and Regulation in India, 2009

Leveraging Economic Growth Through Better Regulation

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Foreword

A competitive business environment is central to fostering the gains of productivity and efficiency. If market imperfections are mitigated this substantially improves the bouquet of choices for consumers and provides better prospects both for assured availability and affordable cost of goods and services. An appropriate regulatory culture which harmonises often conflicting objectives is crucial for building responses to evolving challenges. The ultimate aim is to promote innovation and spur the animal spirit of entrepreneurs while making consumer sovereignty the centre piece of regulatory culture.

The conventional wisdom in the competition law literature acknowledges two dominant streaks – the US antitrust and the European Union (EU) competition law model. Until 1975, many believed that these were the only two competition law models available. Contrary to this belief, India had a *sui generis* model of competition law as early as 1969 in the form of the Monopolies and Restrictive Trade Practices (MRTP) Act.

The competition law in India is primarily governed by the Competition Act, 2002; an act that attempts to make a shift from curbing ‘monopolies’ under the archaic MRTP Act, 1969 to curbing practices having ‘adverse effects on competition’ and promoting and sustaining competition. While a majority of the procedural provisions of the Act with respect to setting up the Competition Commission of India (CCI) have entered into force, several substantive provisions of the Act dealing with ‘anti-competitive agreements’, ‘abuse of dominant position’ and ‘regulation of combinations’ have yet to take effect.

The history behind the Indian strand of regulation has a close relationship to the advent of progressive liberalisation, privatisation and global integration which gathered momentum in 1991. The optimal strategy for allocation as well as distribution of resources became increasingly based on the market economy. Nonetheless, there is a growing realisation that the textbook model of perfect competition does not exist in reality. Besides, competition policy and law comprise just one of the intervention strategies employed to address market imperfections which may result in welfare-reducing monopolies.

Literally, ‘regulation’ means ‘influencing the flow of events’. Under this broad definition, regulation has been in existence since time immemorial

all around the world. There are several reasons why economic regulation emerged along with the process of liberalisation in India. The significant arguments for economic regulation revolve around: (a) a remedy for information failures; (b) the prevention of abuse of market power; and (c) the correction of externalities and market failure.

Ensuring fair competition remains a key regulatory challenge in India. As we are aware, competition policy has emerged as an important aspect of international and domestic business, and the primary purpose of competition policy is to improve economic efficiency so that consumers benefit from lower prices, increased choices and improved quality. A competition policy is no doubt a broader concept that includes aspects of regulatory reform, de-monopolisation and liberalisation. These are designed to address anti-competitive behaviour and policies, including rent seeking grant of monopoly power and unduly restrictive government regulation.

While modern, liberalised economies have increasingly relied upon markets for allocation of resources, markets many a time fail and lead to undesirable consequences. Globally, it is understood that a new regulatory state has arisen pursuant to the emergence of a 'risk society'. India is no exception. In the past few years the Indian economy witnessed a massive growth spurt. While this has lifted millions of people from poverty levels; it has also led to other concomitant challenges. The country has seen several economic wrong-doings and scandals during the period of economic boom. Significant government involvement marked by the dominance of large state owned public enterprises and over involvement of the government cutting across sectors have not only stifled competition but also led to poor services and fewer choices for the end user. This underscores the need for a sounder economic regulatory regime and reforms to adopt the best practices in regulatory architecture for ensuring distributive justice to all.

The sector-specific regulator is closest to the sector and would naturally be a repository of pertinent information available within that sector. It would be more in tune with the business needs of the sector. With several regulatory authorities cropping up simultaneously, it is natural that they might end up having overlapping jurisdictions. Establishment of a competition authority by itself does not resolve all problems relating to creation of competitive conditions. Regulation must also keep pace with innovation, not stifle an innovation culture.

I am indeed happy that CUTS International is bringing out this report, the second in the series, to explore issues relating to sector regulation pertaining to power, ports, higher education, agricultural markets and

civil aviation besides dealing with the issue of 'quality of regulation'. This study is an important contribution towards enriching the available literature in the public domain and encouraging a dialogue to promote a healthy and competitive environment as evolving an appropriate regulatory culture is always a learning curve.

N K Singh
Member of Parliament
Rajya Sabha, India

Preface

As I sit down to draft the Preface, I remember the words of Neelie Kroes, European Commissioner for Competition Policy, “Competition encourages the innovations that create jobs. It keeps a lid on prices. It reminds us that we have to work hard if we want to succeed”. Kroes quite aptly summarises the importance and need for competition policy.

The recent financial meltdown and the global recession have highlighted the inability of markets to function on their own. Important lessons that one can derive are: have fair competition, not totally free competition; and appropriate market correcting regulation, not over or under regulation. Given that the regulatory apparatus is a necessary component of economic governance in any country, it is important to evaluate its features: adequacy as provided by law; effectiveness after being set up; awareness among consumers and other stakeholder groups about its availability and usefulness; and availability of perceptions about regulatory effectiveness.

This series on *Competition and Regulation in India* (brought out by CUTS International in association with CIRC with support from the British High Commission in India) serves the above mentioned purpose for the Indian economy. The first report, released on October 16, 2007, lay down the rationale for a holistic competition policy and law regime in India. The second report, released on March 28, 2009, focuses on the evaluation of quality of regulation in five sectors: power, ports, civil aviation, agricultural markets and higher education.

The 2007 report accomplished a lot for a single volume. But uncovered territories still remained. Competition policy and law being the focus of the 2007 report, the 2009 report lays emphasis on political economy and implementation issues in the context of economic regulation.

The contributors to this report are researchers, eminent academics and policy makers. I had the privilege of chairing an illustrious National Reference Group (NRG) for the duration of the project, i.e. 2006-2009. In total, the NRG members met thrice for meetings and discussions in Delhi which shaped the report and added value to it. All the members of the NRG displayed great commitment to the project. As a result, all the meetings were highly productive and it was a pleasure chairing them. I would like to thank all the participating NRG members for

giving their time so generously to this endeavour and enriching it through high quality discussion.

I hope that the report would be used by the government to address key systemic problems and effectively adopt the National Competition Policy for India, which also finds mention in the 11th Five Year Plan document of the government.

The credit for preparation of the pioneering report goes almost entirely to Pradeep S Mehta and his team of young, bright and energetic professionals at CUTS, led by Siddhartha Mitra, Vijay Vir Singh and Udai Mehta. I would like to compliment them for the diligence and skill displayed in putting together this timely and important report. Pradeep's enthusiasm and dedication was contagious and his vision key to seeing projects such as these to their successful completion. He has been a pioneer not only in the field of consumer protection in India but subsequently also in other areas such as trade and competition policy, an outcome of which has been the landmark establishment of the newly minted CUTS Institute for Regulation & Competition (CIRC, www.circ.in).

Nitin Desai

Former Under Secretary General,
United Nations

Editor's Note

This note is being written in the background of the recent unprecedented financial meltdown and the consequent global recession caused by the failure of Lehmann Brothers in mid-September, which was preceded by the sub prime crisis in the US. The whole global economy was shaken up by this financial tsunami. In an increasingly globalising economy, the reverberations will continue for a long time with adverse consequences. This is not the place for me to postulate on these issues, but it certainly has highlighted the inability of markets to function in isolation or without proper regulation.

The important lessons that can be gleaned from this fiasco are: important to have prudential regulation which can promote consumer safety and fair competition, not totally free competition and unbridled regulation. It is equally important to have appropriate market correcting regulation, not over or under regulation. The same applies to the infrastructure sector as well.

The regulatory law and policy differs from sector to sector, as much as financial sector regulation will have different approaches to manage the complex web of financial products. In other words, each infrastructure sector will have a customised regulatory regime which is shaped by the sectoral needs. This report is an effort to educate the public and the policy community about the effect of these various facets of public policy on competition and regulation. When we were discussing scope of this second report, we did debate on which sectors to chose and which to not to work in this cycle. We arrived at a consensus to select five sectors: civil aviation, higher education, power, ports and agricultural produce markets, because of one common feature, i.e. the ease of entry. In the next cycle, we will look at other sectors, which may not have such a common feature.

A few words about this Report and how and why it was done will help the reader. The report series has resulted from the experiences gained in a raft of competition and regulation projects that CUTS has been engaged in since mid 1990s. Given this background, and inspired by similar subject reports such as human development report etc, CUTS formulated a proposal to do a Status of Competition & Regulation in India report on a biennial basis, i.e. the first one in 2007 and the second one in 2009.

The British High Commission, New Delhi decided to support the project with funding in 2006, as it has a mandate to support efforts which can aid economic reforms in India through such research and advocacy projects. We are grateful for that.

The first cycle was to support two biennial reports, and if the same are successful then to repeat the same for the next biennial, i.e. 2011 and 2013. Thus, we hope to publish this as a flagship publication of CUTS Institute for Regulation & Competition (www.circ.in) in partnership with CUTS, its parent body.

A few words about CIRC will not be out of place here, as it is a new institution. The Institution was floated in 2005 under the leadership of Dr. C. Rangarajan, Chairman of the Economic Advisory Council to the Prime Minister of India to provide research-based capacity building solutions to the infrastructure sector in India, and in other developing countries. The Governing Council comprises of other eminent persons, such as Jagdish Bhagwati; Rubens Ricupero; Vijay Kelkar, Isher Ahluwalia; Shankar Acharya; Frederic Jenny, while Nitin Desai is the Chairman of the Managing Committee.

The first Report was published in 2007 (Competition and Regulation in India, 2007) which accomplished a lot for a single volume. But uncovered ground still remained. Competition law and policy which was the principal focus of the 2007 report is only one component of the regulatory structure that binds the functioning of the economy. Equally important are sector regulators – individual sectors have their own technological characteristics (existence of a natural monopoly, the structure of a network industry, propensity to generate asymmetries of information etc.) which, in turn, determine the nature of regulation.

This second report of 2009 makes sector regulation its primary focus. It also goes much beyond depicting the state of the world in the select sectors and tries to pinpoint the institutional and other root causes of that situation. The report will also be useful for CIRC's capacity building work.

As a part of the report's structure, we commissioned few papers from external resource persons and a CUTS team led by Dr. Siddhartha Mitra, Dr. Vijay Vir Singh and Udai Mehta, who also did some papers. These papers looked at various aspects of competition and regulation in certain specific sectors such as: agricultural markets, power, civil aviation and higher education. Accompanying these sector studies was a perception survey with a scope far exceeding than the one done for the first report. Not only was the awareness of people about competition and regulation

issues gauged and their opinion about the state of competition in India elicited, but also there was a separate section dealing with gleaning of opinions about the state of regulation and actions needed to improve it. In the overall, we found increased awareness of the changes which were brought about due to informed policy responses by our country's economic managers.

The work in progress of the project was guided by a National Reference Group (NRG), chaired by Nitin Desai. The group comprised lawyers, competition law experts, academicians, past regulators and former civil servants. We are very grateful to Nitin Desai for the time that he devoted to the project and chaired the meetings so well. It was a delight to have him as our adroit helmsman.

The NRG met thrice in New Delhi and deliberated over the draft papers. This process was very pertinent for the project as well as raised awareness of the issues. A list of participants in the NRGs is in the annexure to this Note. We are very grateful to all the NRG members for their time, contribution and enthusiasm. This certainly helped the project hugely.

The writers who contributed to this report are: Arnab Hazra, Pradip Chattopadhyay, R. Ravichandran, Rajesh Kumar, Siddhartha Mitra, Udai Mehta, and Vijay Vir Singh. The editorial assistance was provided by Madhuri Vasnani and Richa Bhatnagar, while the layout has been done by Mukesh Tyagi. We are grateful to them also. The overall project guidance was provided by me.

I am also very thankful to all who have commented on the report and finally, we owe deep gratitude to N K Singh, Member of Parliament, Rajya Sabha for writing the encouraging Foreword.

The advance copy of the report was released by Montek Singh Ahluwalia, Deputy Chairman, Planning Commission of India at Delhi on March, 28, 2009 at a panel discussion (<http://www.circ.in/press-mar09.htm>). We are very grateful to him as well as the others who participated in the panel discussion. Others included Creon Butler, UK's Deputy High Commissioner.

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Abbreviations

AERA	:	Airport Economic Regulatory Authority
AICTE	:	All India Council for Technical Education
ALHW	:	Andaman Lakshadweep Harbour Works
APM	:	Administered Price Mechanism
APMC	:	Agricultural Produce Marketing Committee
ARC	:	Administrative Reforms Commission
ATF	:	Air Turbine Fuel
BCI	:	Bar Council of India
BOT	:	Build-Operate-Transfer
BPS	:	Ballard Pier Station
CA02	:	Competition Act, 2002
CAGR	:	Compounded Annual Growth Rate
CAT	:	Competition Appellate Tribunal
CBUE	:	Central Board of Undergraduate Education
CCI	:	Competition Commission of India
CFSs	:	Container Freight Stations
CONCOR	:	Container Corporation of India
CSOs	:	Civil Society Organisations
CWRs	:	Certified Warehouse Receipts
DCI	:	Dredging Corporation of India
DGCA	:	Director General of Civil Aviation
DWT	:	Dead Weight Tonnage
EDGE	:	Emerging Directions in Global Education
ERCs	:	Electricity Regulatory Commissions
FCI	:	Food Corporation of India
FDI	:	Foreign Direct Investment
FEPs	:	Foreign Education Providers
FICCI	:	Federation of Indian Chambers of Commerce and Industry
FIEO	:	Federation of Indian Export Organisations
GDP	:	Gross Domestic Product
GNP	:	Gross National Product

GT	:	Gross Tonnage
ICDs	:	Inland Container Depots
ICT	:	Information and Communication Technology
IP	:	Indian Ports
IPRs	:	Intellectual Property Rights
IRAHE	:	Integrated Regulatory Authority for Higher Education
IRDA	:	Insurance Regulatory & Development Authority
M&As	:	Mergers and Acquisitions
MCI	:	Medical Council of India
MPT	:	Major Port Trust
MRTPA	:	Monopolies and Restrictive Trade Practices Act
MRTPC	:	Monopolies and Restrictive Trade Practices Commission
MSP	:	Minimum Support Price
NAAC	:	National Assessment and Accreditation Council
NCP	:	National Competition Policy
NDDB	:	National Dairy Development Board
NKC	:	National Knowledge Commission
NMDP	:	National Maritime Development Policy
NRG	:	National Reference Group
O&M	:	Operation and Maintenance
OSL	:	Ocean Sparkle Limited
PPAs	:	Power Purchase Agreements
PPPs	:	Public-Private Partnerships
PSUs	:	Public Sector Undertakings
SBUE	:	State Boards of Undergraduate Education
SEBI	:	Securities and Exchange Board of India
SEBs	:	State Electricity Boards
TAMP	:	Tariff Authority for Major Ports
TRAI	:	Telecom Regulatory Authority of India
UGC	:	University Grants Commission
UTPs	:	Unfair Trade Practices
WPI	:	Wholesale Price Index
WTO	:	World Trade Organisation

Introduction

The recent financial meltdown and the global recession have highlighted the inability of markets to do it alone. In fact 'markets' or 'regulation' are not mutually exclusive as many free marketers might want us to believe. The recently highlighted logic for regulation of financial markets can also be brought to bear on infrastructure sectors to yield policy advice.

The important lessons that can be gleaned from the recent recession and case studies of infrastructure sectors in this volume and elsewhere are: it is important to have fair competition, not totally free competition; it is equally important to have appropriate market correcting regulation, not over or under regulation.

Contrary to what many free marketers think, the rationale for regulation is built firmly into the foundations of neo-classical economics. Neo-classical economics talks about three classes of market failures: natural monopolies, asymmetric information and externalities. These describe scenarios in which markets do not serve us well and have to be regulated. Such regulation can take various forms – restriction of competition in the first case, information disclosures, screening mechanisms etc. in the second case and taxation of production or consumption activity in the third.

However, there are other ways in which regulation can be useful. Note that neo-classical economics builds up an idea of perfect competition which maximises economic welfare (the sum of producer and consumer welfare) in the absence of market failure. In real life we do not find perfect competition being accurately depicted by economic behaviour but only see approximations of it.

The deviations from perfectly competitive behaviour are often unavoidable: distances among sellers, differences in product technologies etc. In yet other cases these are not unavoidable but acceptable: distinctive packaging and customer services that go with the product are often used to capture markets. However, there are others which are

considered as unfair or a breach or “accepted norms” – predatory pricing, tied sales, misleading advertisements etc. In other words, these are practices considered ethically wrong as these are used to compete rivals and have nothing to do with ‘productivity’ or ‘efficiency’– characteristics valued by consumers.

Thus, the objective of regulation is two fold: to deal with market failures and prevent ‘unfair competition’ or equivalently to ensure ‘fair competition’.

Given that the regulatory apparatus is a necessary and important component of the system of economic governance in any country, it is important to evaluate its features: its adequacy as provided by law, effectiveness after being set up, awareness of consumers and other stakeholder groups about its availability and usefulness, and their perceptions about regulatory effectiveness.

The *Competition and Regulation in India* series serves the mentioned purpose for the Indian economy. The 2007 Report has already been published and deals with the subject of regulation using a broad brush discussing the need for competition policy and law, its evolution in the Indian context and throwing light on anti-competitive practices that are important in the Indian context. The perceptions of stakeholders about the status and implementation of competition law and policy in India is also captured. Section 1 discusses the main contributions of this report.

While competition law and policy which applies to the entire economy is important, so is sector regulation. Sector regulation can take account of the specific technical nuances that characterise a sector and modify the behaviour of actual and potential participants. The 2009 report therefore focuses on the evaluation of sector regulation in India. The quality of regulation in five sectors – power, ports, higher education, agricultural markets and civil aviation – is evaluated by this report.

Before embarking on the evaluation of quality of regulation in these selected sectors it is necessary to define ‘regulatory quality’ and delineate and elaborate on its various aspects:

- The appropriateness of regulation, i.e. both over and under regulation are harmful
- The suitability of regulations, as these appear on paper, for dealing with problems of market failure or anti-competitive practices characterising this sector, if any
- Given regulatory laws, the success of the regulator in implementing these and underlying reasons

Section 2 elaborates on the transition from the 2007 report to 2009 report and the concept of 'quality of regulation' which is a building block for the sector studies in the latter report. The choice of sectors for this report is also explained.

Section 3 elaborates on the main findings of the 2009 report and highlights the specific regulatory problems facing each studied sector. In addition, the trends available from the perception and awareness analyses in the first and second phases are also highlighted.

Section 4 suggests the way forward in terms of research, advocacy and outreach.

1. Status of Competition and Regulation, 2007: Highlights

Broad Overview of the Report

The 2007 report lay down the rationale for a holistic competition regime in India – both sector specific regulatory laws and competition policy and law are needed to promote fair competition in all sectors. The justification for competition policy and law and the associated principles provided by this document formed the basis for a successful campaign for a National Competition Policy (NCP) for India. In fact this report was motivated by the success of an earlier path breaking study of the competition and regulation scenario in India: 'Towards a Functional Competition Policy for India'.

However, the report had many other contributions. For the first time an attempt was made to assess the awareness and knowledge of people about anti-competitive practices and the need for and state of regulation in the country. These were compiled in the form of summary measures. Perceptions about the state of competition and regulation in the country were also similarly recorded.

We will look at some of the highlights of the report in terms of concepts explained, analysis carried out and conclusions drawn.

Rationale for Competition law and Policy

The report outlined rigorously the rationale for a competition policy and law – the need to tackle anti-competitive practices and discourage the use of unfair means by firms against consumers, the inculcation of a competitive spirit in the market etc. The linkages between a vibrant competition policy and enforcement of competition law on one hand, and acceleration in economic growth, high quality of life and greater economic efficiency on the other, were also spelled out. In the process certain

common myths were highlighted and countered – for instance, competition policy and law favours foreign firms over domestic ones, is a tool for the rich, does not encourage public participation etc.

Nine Principles of Competition Policy

The policies of the Central Government were also evaluated by the report in terms of their tendency to generate anti-competitive outcomes, and nine principles of a competition policy were laid down – competitive neutrality; facilitation of access to essential facilities; provision of facilities for easy movement of goods and services; separation of policy making, regulation and operation; facilitation of free and fair market processes; balance between the needs for competition and an intellectual property rights (IPRs) regime; creation of a transparent, predictable and participatory regulatory environment; public justification of deviation from competition principles; and respect for international obligations.

History of India's Competition Regime

A sketch of the history of India's competition regime and its possible future was also discussed. The emphasis was on explaining the transition from the Monopolies and Restrictive Trade Practices (MRTP) Act 1969 to Competition Act, 2002 (CA02) and its amendment in 2007. The shift from the former to the latter was explained on the basis of the demands of the consumer movement for effective regulation of anti-competitive practices such as cartels, refusal to deal, anti-competitive mergers and acquisitions (M&As), abuse of dominance etc. These demands first led to the amendment of the MRTP Act in 1984 to bring in consumer protection provisions against Unfair Trade Practices (UTPs), and then in 1991 to bring the state sector into its ambit.

The shift from MRTP Act to CA02, which is explained well by the report, finally came about because of change in the government's stand in response to lobbying efforts by CUTS and consequent recognition that enhancing competition is more important than checking monopoly – the MRTP Act in its enthusiasm to check monopoly had placed a restriction on dominance rather than its abuse thus throwing away the baby, in the form of competition, with the bathwater.

The report then goes on to describe and analyse the proceedings of the Raghavan Committee which was subsequently set up to draft a new competition policy and law. The committee heard various interest groups and came up with a concept bill which postulated the staggered implementation of a new competition law with a cooling off period of three-four years in which advocacy efforts would be undertaken to popularise the new law and invite debate on it.

The Concept Bill was revised and finally a draft Competition Bill was placed for adoption by the Parliament in 2003, which was adopted as CA02. The appointments were challenged in the Supreme Court, which reminded the government about the doctrine of separation of powers between the executive and the judiciary. Consequently several amendments were carried out in 2007.

A few major changes were introduced. The authority was split into two: a Competition Commission, headed by an expert, to regulate, and a Competition Appellate Tribunal (CAT), headed by a judge, to adjudicate. Other than that, the selection procedure was legislated as against the earlier one where the government did things in an arbitrary fashion, which actually led to the challenge in the apex court. However, one major change involved making all merger notifications mandatory as against the earlier provision of these being voluntary, which actually had all big business houses up in arms.

The report, however, notes that CA02 did bring about many groundbreaking changes: extra-territorial jurisdiction which would allow the competition authority to check abuses abroad with an effect on India; the shift from the structural approach of checking dominance to the behavioural approach of checking abuse of dominance etc.

The report also points out a major failing of the competition law as finally passed: it did not postulate a completely neutral and representative procedure of selecting the chairmen and members of the competition agency and continued with the tradition of appointment directly by the government.

Institutional and Administrative Challenges Facing the Competition Enforcement Machinery

The report lists the various institutional challenges faced by the Competition Commission of India (CCI) – building its own dedicated staff, effective advocacy through the media and interactions with other agencies, inculcation of a healthy competition culture etc.

The report also mentions many administrative limitations of the CCI – the power with Central Government to supersede it, the need for CCI personnel to get clearances for foreign travel from various branches of the government, its inability to raise its financial resources which were to be fixed by the Central Government, its subordination to policy directives issued by the government etc.

Major Anti-competitive Practices in the Indian Economy

A broad overview of anti-competitive practices and associated challenges was also provided by the report – cartelisation, abuse of dominance and other abuses.

Cartelisation

The significance of cartels as a collusive weapon used by a group of firms against others as well as to exploit consumers is explained in detail in this report through illustration as well as analyses. A classification of cartelising behaviour is presented and estimates of economic loss from known cartels serve to illustrate the danger that these pose for economic health.

Important cases of cartel like behaviour in India, such as that in the cement industry, are pointed out. The oral and implicit nature of most cartel agreements is stressed – this characteristic makes it very difficult to apprehend wrongdoing firms.

The provisions of the new competition law to tackle cartels are highlighted by the report, thereby helping to build awareness about the subject. These are a great improvement over the power given to the Monopolies and Restrictive Trade Practices Commission (MRTPC) to give ‘cease and desist’ orders – the MRTPC could only ask colluding firms to modify their collaboration so that it did not remain prejudicial to the public interest; no immediate punitive action could be taken. Such action could be taken only if the collusive agreement continued in its original form despite orders. Failures of the MRTPC to tackle evident cartelising behaviour are also highlighted.

The CA02 marked a significant change from this lenient and ineffective treatment of cartels by laying down strict criteria to identify cartels – the presence of agreements, arrangements or understanding to control production/distribution or limit price; and the use of identical terms of trade/prices.

The report also highlights the one disadvantage that CA02 has *vis-à-vis* MRTP Act – the inability to carry out dawn raids, i.e. unannounced visits to the offices of suspected cartel operators to seize documentary/electronic evidence of a cartel agreement. On the other hand, its provisions also imbue it with a certain advantage. These include leniency provisions which imply that the first (or even the first two or three) out of colluding parties participating in a cartel to cooperate with an inquiry is (are) rewarded with a significant reduction in punishment.

Abuse of Dominance

The MRTP Act punished large market shares or dominance. The report highlights that this is inappropriate in conditions when markets might be linked to each other or when the perceived contours of a market hide several segments, each dominated by a different firm. Moreover, it is quite possible for a firm to become dominant in a market on account of its superior productivity or the superior quality of its products,

The report thus elaborates on the rationale for CA02 – it is not dominance *per se* that it is bad but its abuse that should be punished. The report then goes on to provide a clear definition/classification of abuses of dominance and their illustration in the international and Indian context: exploitative abuse (tying or bundling product sales, predatory pricing, IPR abuses etc.) and exclusionary abuse (competitors are prevented from market participation through exclusive dealing arrangements with distributors or exclusive agreements with input suppliers).

A Campaign for State Level Competition Agencies

The report highlighted the fact that anti-competitive practices were rife at the local level and a central competition agency was ill-equipped to deal with such violations of competition law. It therefore called for state level competition laws and agencies better equipped to deal with local competition abuses as well as protect local consumer interest.

Perception Analysis

The basic conclusions were that the level of awareness of competition policy issues was neither very good nor bad. In general, it recorded the perception that competition and regulatory authorities had been ineffective in checking anti-competitive practices.

Other Sections

Brief accounts were provided of the status of competition and regulation in two utility sectors: electricity and telecommunication as well as social sectors – education and health. In the former, barriers to competition were highlighted while in the latter anti-competitive practices and quality problems arising due to lack of regulation were emphasised.

A Summary of Contributions

The main accent of the 2007 report was thus on regulation and policy that affects the entire economy, i.e. competition policy and law. The rationale for such law and policy was elaborated on (this chapter only provides a flavour of the subject matter addressed) with an associated discussion of anti-competitive practices that such law/policy might help

to prevent/control. The components/principles underlying an ideal competition policy were also laid out and recommendations made for the future.

An attempt was also made to ascertain the perceptions of stakeholders about existing regulation as well as the state of competition in the Indian economy. This exercise was seen as part of an ongoing process – future evaluations could be combined with this one to yield a trend.

Some attempt at sketching sector regulatory problems was also made in this report but the analysis was intentionally superficial and imbued with the objective of providing a picture of prevalent anti-competitive practices, barriers to competition and regulatory problems with implications for competition.

The Transition to the 2009 report

The 2007 report accomplished a lot for a single volume. But uncovered ground still remained. Competition policy and law which was the principal focus of this report is only one component of the regulatory structure that binds the functioning of the economy. Equally important are sector regulators – individual sectors have their own technological characteristics (existence of a natural monopoly, the structure of a network industry, propensity to generate asymmetries of information etc.) which, in turn, determine the nature of regulation. The second report makes sector regulation its primary focus. It also goes much beyond depicting the state of the world in sectors and tries to pinpoint the institutional and other root causes of that state.

Note that the state of each sector and therefore its regulation is determined by the state of the economy (average level of affluence, income distribution etc.) and polity – in short, political economy issues. Such political economy issues not only determine the content of regulations on paper but also their implementation. Political economy and implementation issues thus formed an important part of the 2009 report.

Evaluation of the state of regulation has to be preceded by a definition of the quality of regulation. Three characteristics determine the quality of regulation:

1. It should be appropriate as both under and over regulation are dangerous, i.e. regulation without market failures or its absence in the presence of market failures might be harmful for the economy and impede economic growth

2. The implementation of the regulation: Successful implementation of regulation requires financial and functional autonomy of the regulator (which, in turn, depends on security of tenure of members, a mature political system as revealed by an arm's length distance between the line ministry and the regulator, earmarked sources of funds for the regulator etc.) as well as effective coordination and delineation of functions among sector regulators and competition agencies
3. The pro-competitive nature of regulations

These aspects of quality of regulation are studied in the 2009 report – each sector study comments on the appropriateness of regulation in the initial sections on regulatory trends; a section is devoted to implementation modalities and associated mentioned attributes; finally, a competition assessment of regulation looks at the ways in which these laws restrict or promote competition.

Thus, to summarise, the 2009 report tries to examine the evolution of regulation/regulatory problems from a political economy perspective and assess the quality of regulation in terms of the suitability of content for tackling market failures, the effectiveness and independence of the regulator and the extent to which the set of sector regulations fosters competition.

The actual selection of sectors was done on the basis of discussions of a meeting of the NRG members – a collection of distinguished professionals from varied backgrounds linked to infrastructure and regulation in different ways. The group comprised lawyers, competition law experts, academicians, past regulators and former civil servants.

A cross cutting theme to characterise across all sector studies in this volume was selected: the effect of various dimensions of policy on competitiveness in the provision of infrastructure service and access to it. This cross-cutting theme explains the nature of terms of reference formulated for this study with accent on implementation modalities, political economy issues and competition assessment.

The selection of sectors was therefore based on perceptions about the importance of the above in determining regulatory outcomes, i.e. those sectors in which actual physical performance indicators and access to service were affected significantly by the above factors were selected. The sectors selected were higher education, power, ports, agricultural markets and civil aviation.

2. Competition and Regulation in India, 2009: Conclusions and Recommendations

Overview

Experts, both within and outside CUTS, were selected carefully to carry out the sector studies. The draft papers relating to sector studies were subjected to stringent review by selected experts and the NRG. Based on these comments the papers were revised to meet the high standard set by the NRG and the experts. What emerged was therefore an outcome of the collective wisdom of a large number of professionals with experience in the field being researched. The stringent review process therefore facilitated, if not ensured factual correctness, analytical rigour and methodological consistency.

Accompanying these sector studies was a perception survey with a scope far exceeding that for the first report. Not only was the awareness of people about competition and regulation issues gauged and their opinion about the state of competition in India elicited, but also there was a separate section dealing with gleaning of opinions about the state of regulation and actions needed to improve it.

Thus, the perception survey served two important objectives. By continuing to assess the perceptions and awareness of people about the state of competition and regulation in India it facilitated an understanding on how things had changed relative to the base levels assessed in the first report. Second, statistical analysis of answers to sector-specific questions served as a useful companion to the sector studies themselves – helping to check the findings of these studies and at other times offering explanations for these.

We now look at the main conclusion and policy recommendations emerging from these studies.

Higher Education: Need for Freer Entry and Tighter Checks on Quality

Overview

It was found that the higher education sector is beset by major problems. There are problems of quality – higher education being offered is of mediocre or poor quality with the exception of a few institutes such as the IITs and IIMs. There are imbalances in demand and supply – a large army of graduates in non-technical areas faced with scarcity of employment opportunities co-existing with excess demand for technical skills despite the spurt in vocational education.

The enrolment rate in higher education is still very low despite significant growth in recent times. It compares very poorly with even other East Asian emerging economies at one-third of the level in Philippines and half of that in Thailand.

Much of the problems of undersupply can be attributed to the entry barriers characterising this sector. A university can be set up by legislation only – either Parliamentary or State. Those set up under the latter can operate within the state only. Such lack of competition not only affects the amount of education supplied but also its quality. We will look at the various issues covered by this sector study.

Barriers to Competition

Competition in the price and quality space is needed to generate consumer satisfaction. However, regulations in this sector often impose controls on fee charged. The low level of fees implies that the quality of education on offer is also poor. Only select educational institutions like IITs and IIMs can offer good quality education despite low fees because of generous government subsidy.

Government subsidy to select institutions coupled with fee control for all violates the principle of competitive neutrality – a level playing field, where private educational institutes can compete with government supported ones, does not exist. This chokes competition by restricting private entry and reduces quality of education. The situation has been exacerbated by restrictions placed on foreign players in terms of fees charged and the content of syllabi. This has discouraged foreign entry into the Indian higher education sector.

Incentive Problem

The study comes out in favour of allowing profit making in education and reinvestment of surpluses for capacity enhancement. It is felt that opportunities for profit making and reinvestment of surpluses coupled with quality checks would enhance both the quality and quantity of education supplied.

The report does recognise the need to provide access to higher education for all but concludes that control of fees is not the way to do it as competition in provision of higher education and therefore, its quality is sacrificed at the altar of access. The National Knowledge Commission (NKC) has come out with recommendations for a system which can facilitate access without compromising competition and quality. In the proposed system educational institutions would be free to set a fee of their choice. Those unable to pay these fees directly could approach commercial bank for loans. A well funded National Scholarship System

for deserving economically backward candidates would also be set up as a part of this system. The recommendations of the NKC deserve careful consideration according to this sector study.

Political Economy Issues

Much of the poor performance of the higher education sector can be attributed to political economy issues and poor regulatory design. While government patronage is often necessary for the development of higher education because of the considerable externalities characterising this sector, the role of politicians and bureaucrats in the evolution of this sector has been far from positive. The authors of the study are quite emphatic in their conclusions that higher education policy has been a product of the government's own interests and whims rather than a clear welfare enhancing vision.

The authors conclude that all education policy and regulation have been motivated to increase bureaucratic and political control over this sector and often even to use educational institutions as a breeding ground for politicians. The situation has improved since the 1980s with the inflow of private and foreign investment. But government has again made an entry through the back door – politicians and civil servants establishing non-profit trusts to acquire land and start their own educational institutions.

Inappropriate Regulatory Structure

Another factor contributing to poor performance is the inappropriate regulatory structure and assignment of regulatory functions. There has been considerable overregulation of 'whom educational institutions can teach', the content and quality of their syllabi and fees charged. On the other hand, there has been an under regulation of teachers, teaching and research.

A complex and confusing web of multiple regulatory agencies and ministries bind the functioning of educational institutions. Overlap in roles, lack of coordination among agencies and inadequate awareness about one's role characterises these regulatory agencies. Thus, many clarifications come from courts rather than legislators or regulators. While higher education is constitutionally a state subject effective control is exercised by the Central Government and related governing institutions.

The recommendations of the NKC try to provide a way out of this quagmire caused by the presence of multiple regulators. It recommends the constitution of an umbrella regulator called the Integrated Regulatory Authority for Higher Education (IRAHE) which would be the only agency to accord degree granting power, monitor standards, settle disputes and

license accreditation agencies. It would operate on the principles of competitive neutrality. The role of the University Grants Commission (UGC) would be restricted to that of making grants.

However, there is a contradiction between the posited autonomy of the IRAHE and the processes relating to appointment of its members as recommended by the NKC. These recommendations leave enough room for political interference in nomination of these regulators and therefore enough room for manipulation of the entire higher education system by politicians, as we see in other sectors too.

The recent recommendations by the Second Administrative Reforms Commission (ARC) are however not consistent with those of the NKC. It is not in favour of an umbrella regulator and recommends a separate body for each professional field of study. This would supposedly be consistent with the principle of decentralisation and therefore encourage better governance.

However, the ARC does recommend standardisation of regulatory design by law and urges uniformity in the composition and structure of the apex regulatory bodies managing various fields. Apart from licensing functions all other regulatory functions relating to any professional field would be performed by the concerned apex regulatory body – laying down norms and standards, updating curricula, undertaking faculty improvement, research facilitation and other key issues.

Summary

In short the authors of this study feel that a complete overhaul of regulatory design to facilitate both autonomy and clarity in mandates is necessary to improve the higher education system. This would improve the quality of regulation and therefore of education. There is a need to dismantle regulations that deter entry into the sector and reduce flexibility in offering tailor made instruction. At the same time there should be a strong accent on accreditation and regulation of education quality.

Two others recommendations emerge for promoting competition in the higher education system. First, a strict adherence to the principles of competitive neutrality is considered as being necessary for promotion of competition in this sector. However, this needs to be backed up by liberalisation of fee control and recognition of the right of educational institutions to make profits. These measures would induce competition but not necessarily choke access. The role of the government lies in being in a facilitator of commercial loans or scholarships for deserving needy students.

Power Sector: Need to Overcome Implementation Failures

The power sector constitutes the backbone of the economy. A one percent gross domestic product (GDP) growth is usually associated with a one percent increase in power consumption. To sustain the current rate of growth of per capita income till 2050, power consumption needs to increase 12 times from its present level. Thus, growth in power consumption constitutes a binding constraint on economic growth.

Growth of the power sector, in turn, depends on the inflow of private resources to this sector, given limited government resources. But private investment, in turn, hinges on the soundness of the regulatory framework governing this sector. Thus, an examination of regulatory content and design is important.

Evolution of the Power Sector

For many years after independence this sector remained largely a government monopoly in terms of both ownership and control. The State Electricity Boards (SEBs) constituted integrated set ups at the state level and combined generation, transmission and distribution functions.

A huge amount of public money found its way into this sector and average annual growth rate between 1950 and 1995 was around eight percent per annum – an impressive achievement which, however, must be evaluated in the light of the low initial base of 2000 MW for the entire country.

However, inadequate finances implied poor quality of equipment and infrastructure and therefore electricity supply. Political economy issues were at the root of these inadequacies. Equity considerations were cited to provide rural power at extremely low tariffs and often free of cost. However, only the rural rich could avail of the power supply as the poor could not meet installation costs. The large gap between cost and revenues implied growing deficits of electricity boards and often adversely affected their capacity to provide power to distant villages. As of now, 30 percent of rural households have been electrified.

Restructuring of the Power Sector

The inability of the power sector to meet the aspirations of the population and its poor financial health led to its restructuring. The restructuring was two fold: establishment of an independently regulatory body at the state level linked to a Central regulator and unbundling of SEBs into different companies to perform the functions of generation, transmission and distribution.

Unbundling of an integrated set up into various elements was undertaken with an intention of introducing competition into individual elements, wherever possible. After unbundling, generation and distribution are being considered as competitive segments with multiple potential operators while transmission is being regarded as a natural monopoly.

The objective of introducing competition into generation and distribution segments has often been frustrated. The poor financial position of distributing state companies often deters private entry into generation as payments for energy sales are considered insecure.

Open access to the common carrier for all industry players is often not available and deters competition. Though the Electricity Act, 2003 requires the Electricity Regulatory Commissions (ERCs) to facilitate open access, implementation is poor and this objective is often not realised. Local distribution companies force captive power plants to sell only to these companies by denying access outside the state; the result is low prices for the generating company because of the resulting monopoly and consequently, low capacity utilisation.

Yet another barrier to competition in the electricity sector is the continuation of exclusive power purchase agreements (PPAs) which limit sales by generation companies to distribution companies operating in the concerned state. Finally, principles of competitive neutrality are violated regularly as government assistance is provided only to public sector distribution companies.

Regulatory Design and Implementation

The study points out gross inadequacies in regulatory implementation resulting in a lack of regulatory autonomy. The Electricity Act 2003 requires constitution of an independent committee for the selection of regulators (through a stipulated process within a stated period of time) and grants members immunity from removal except in the case of proven misconduct. However, such provisions are often flouted: vacancies continue to exist indefinitely and politically motivated appointments to the ERCs are made. Merit is given the short shrift.

The lack of financial autonomy of ERCs also prevents their independent functioning as most of these have not utilised the right provided by the Electricity Act, 2003 to raise revenues through levy of license fees, regulation fees etc. Capacity building is consequently adversely affected. Government imposed ceilings on salaries also hamper their efforts to attract good human capital.

The resulting adverse impact on functioning of ERCs is evident. Distribution companies have been forced by many state governments to supply free power while the ERCs remained mute bystanders. Even the recommendation of the Act to pay subsidy amounts in advance to distribution companies have been flouted by the state government.

Finally, even though ERCs have provided avenues for consumer participation in regulation, lack of capacity in this regard has prevented consumer bodies from playing a significant role. ERCs can be faulted for not making adequate efforts for capacity building and disseminating the required regulatory information.

Conclusion and Recommendations

After independence for many years the electricity sector remained an integrated set up. Large amounts of public money facilitated expansion. However, a politically motivated tariff structure resulted in regular deficits and consequently poor infrastructure, quality of power supply and rural spread.

The malaise was sought to be overcome through reform which comprised of unbundling of the power supply set up and suitable introduction of competition into the separated elements. However, the flouting of open access principles, continuation of exclusive power purchase agreements, lack of competitive neutrality and legal violations by state governments have deterred private entry and hampered competition.

The important lesson to be gleaned from this is that regulations that are good on paper often do not have the expected impact because of poor implementation. Though ERCs are supposed to be independent of the state governments, in practice they often function as government agents. State governments have been very active in constraining the independence of ERCs by ensuring appointment of former civil servants as regulators. The ERCs themselves have contributed to this tendency by not making use of the powers granted by the Electricity Act to realise financial autonomy.

It is essential that civil society plays a more important role in regulation as necessary powers are granted by the Act. Greater participation by stakeholders in regulation can prevent regulatory capture by governments.

Agricultural Markets in India: III Conceived Regulation

Overview

Agricultural markets in India are characterised by fragmentation and the presence of long chains of intermediaries linking the farmer to the ultimate consumer. Moreover, fragmentation provides a bargaining advantage to buyers/traders of produce who extract surpluses from sellers/producers because of their advantageous positions. The actual producer, the farmer thus gets only a small proportion of the expenditure incurred by the consumer. This implies that he is often pegged back to a subsistence level of revenues. Reinvestment into agricultural activities is poor and therefore technological dynamism is lacking. This constitutes a rather convincing thesis of agricultural stagnation.

Quite obviously regulation can play a remedial role in this regard by facilitating competition and regulating middlemen. Better infrastructure and information flows can also bring about better integration of hitherto fragmented markets. This should result in higher prices at the farm gate which in turn can bolster the income levels of farmers and farm investment. This would inject the much needed dynamism into Indian agriculture. Such dynamism can help maintain the tempo of overall economic growth as agriculture constitutes 25 percent of Gross National Product (GNP) and around 60 percent of the economy's labour force.

The importance of appropriate regulations for creating the right set of market incentives for farmers cannot be overemphasised. Regulations should stimulate competition by dismantling barriers to entry to agricultural markets as well as enable a reduction in the length of the chain of intermediaries separating the final consumer from the farmer.

The concerned sector study in this volume examines the political economy of agricultural markets, analyses the state of regulation in this sector in the light of desired characteristics and comes up with recommendations for future regulation/regulatory mechanisms.

Political Economy of Agricultural Markets

The study indicates how the existence of a farm constituency that demanded support in the form of output and input subsidies ultimately depressed public investments in agriculture and led to stagnation. Under such a situation, the government tried to build up its support among farmers by ensuring fair and remunerative prices through the Agricultural Produce Marketing Committee (APMC) Act and its amendment.

The Present State of Regulation

Regulation of agricultural markets is governed by the APMC Acts. The basic objective of these acts was to provide fair competition through mandatory auctions of produce in regulated markets. This was meant to generate fair and remunerative prices and ensure full accrual of payments to the grower without their being whittled down by leakages to intermediaries.

However, implementation left a lot to be desired. Traders had to buy licenses in order to trade, a fact which limited their number and therefore competition for the produce. Producers were also required to sell their produce only to licensed traders in the regulated market area.

Thus, the APMC Acts actually kept the monopsony elements created by market fragmentation alive though these did confer some benefits on the seller through the use of accurate weights and scales, a fair dispute settlement mechanism, better storage facilities and reduction of levies.

The APMC Act was sought to be amended and a model law – State Agricultural Produce Marketing (Development and Regulation) Act, 2003 – was made. This provided for the setting up of private markets, direct purchases by consumers from farmers and contract farming. The objective was to increase avenues to the farmer for selling his produce and thus ensure more remunerative prices.

The Way Forward

The sector study makes concrete recommendations for enhancing competition in agricultural markets with favourable implications for the remuneration received by farmers.

First, it is essential to remove the restriction on mandatory selling and buying in regulated markets. Instead regulated and unregulated markets should be allowed to co-exist. Such co-existence would increase competition for the farmer's produce.

These regulatory changes should be accompanied by competition enhancing infrastructure changes. The farmer should be provided with information about alternative options to sell (for example, through computer kiosks or through cell phone messages). He should also be given the option of postponement of sales after harvest through provision of warehouse facilities.

In this context the author introduces the concept of “Certified Warehouse Receipts” (CWRs). These receipts, to be provided by warehouses, would

be backed by a legal framework. Receipts would state the quantity and quality of produce stored by the farmer in the certified warehouse.

The receipts can be an instrument for ensuring loan compliance. If a farmer takes a farm related loan and fails to repay, the system dictates that the produce automatically becomes the property of the lending bank. Alternatively, he can sell the receipt to a trader who then not only acquires ownership of the produce but also the farmer's liability.

Thus, the system of CWRs meets multiple objectives. Storage facilitates postponement of selling and makes distress sales unnecessary. Consequently, the farmer gets better prices. CWRs ensure that risk in lending to farmers is reduced through greater compliance. This is important as weather and other random factors make agriculture a highly risky activity. Third, the reduction of risks ensures greater lending to farmers from the organised financial sector and reduces dependence on informal money lenders charging exorbitant rates of interest. In summary, higher prices and lower interest burden have salutary implications for the economic situation of farmers and the rural economy.

Futures markets offer another channel for protecting the farmers against price risks. However, there is a need for sound regulation as these can be manipulated for speculative purposes.

In Summary

Agricultural markets in India are characterised by the existence of long chains of exploitative intermediaries separating farmers from consumers and robbing them of a large proportion of final consumption expenditure on their produce. Recent regulations enacted by the government have strengthened the position of traders by imposing licensing requirements though these have also helped in shortening the chain of intermediaries. Clearly, much more is needed.

Regulated markets should be supplemented by unregulated ones to enhance selling options for the farmer. Information about markets needs to be conveyed to the farmer through electronic and other means to increase the selling options at his disposal. Storage facilities which facilitate postponement of sales also benefit the farmer by enhancing his flexibility in responding to market signals. Future markets, another instrument, can allow him to hedge market risks. Finally, the system of CWRs can simultaneously reduce lending risks for banks and price risks for farmers, thus helping to alleviate market failure in the formal credit market. This implies a greater reliance of the farmer on formal credit relative to informal credit available only at exorbitant rates. The farmer thus benefits immensely.

Ports: Need for More Uniform Regulation

Overview

Ports constitute an important medium for international trade. About 95 percent of India's trade by volume and 77 percent by value moves through Indian ports. Around 75 percent of India's port traffic is handled by its 12 major ports. The compounded annual growth rate (CAGR) of container traffic handled by Indian ports over the past five years (2002-07) was 22.9 percent. Thus, the port sector has gained importance in recent times and this trend is expected to continue into the future.

Regulatory Framework: A Critique

All Major Ports are administered by an autonomous body called Tariff Authority for Major Ports (TAMP) constituted in 1997 while minor ports are administered by the state maritime boards. TAMP regulates both vessel related and cargo related tariffs and stipulates conditions governing application of such rates. Usually cost plus methods are used to fix tariffs. TAMP involves users in interactive consultation exercises which have a bearing on regulatory decisions.

Recently TAMP has issued guidelines for upfront tariff setting on PPP projects. The involved port trusts would have to specify the upfront tariff in the bid document which would constitute a ceiling on the actual tariff. The upfront tariff would be adjusted every five years and take into account technological developments. Actual tariffs charged would be indexed to inflation.

By setting only ceilings on tariffs, TAMP has seemingly facilitated competition between ports. But its autonomy from the government and ability to enforce regulation is in doubt. Appointment, removal and terms and conditions of employment of officers and members of TAMP are controlled by the government. Moreover, the government has the power to supersede the decisions of TAMP regarding tariff fixation.

The author of this sector study feels that in view of the growing importance of ports as a medium for container trade and increasing globalisation of the Indian economy, there is a need to have a unified authority to regulate all Major and Minor Ports in the coastal region of the country and also Dry Ports (such as Inland Container Depots and Container Freight Stations) to facilitate efficient multimodal transportation in the country. Regulation should ensure a proper balance between long term public responsibilities (safety, environmental protection etc.) and normal shorter-term business objectives, and promote competition by facilitating greater access.

In Summary

The role of ports in national economic activity has increased dramatically in the recent past and should increase further in the near future, given the country's enhanced outward orientation. A number of progressive changes have been made in the regulatory environment, which include tariff liberalisation. A provision has been made only for fixation of tariff ceilings and not actual tariffs for PPP projects, thus providing for competition between ports. Further, all Major Ports have now been put under the same tariff authority, TAMP, since 1997.

However, there is scope for greater consolidation as the 187 Minor Ports of the country are regulated by individual state maritime boards and follow their own rules regarding tariff fixation. In any case, even the TAMP needs to shift from cost plus norms to normative methods for fixation of tariff ceilings in a bid to encourage efficiency. There is also a need for greater autonomy of TAMP as the employment conditions of officials/members are currently controlled by the government which also has the right to supersede its decisions. With the government having considerable shipping interests of its own it becomes very hard for the regulator to adhere to principles of competitive neutrality.

Civil Aviation

With the termination of government monopoly in the airline sector and its opening up to private competition, certain positive changes have been noticed: increase in passenger traffic and reduction in fares.

However, the competition generated has been marked by various imperfections. While traffic on profitable popular routes has increased considerably that on less profitable routes has contracted. Government airlines still continue to be associated with staff strength completely out of proportion to fleet size i.e. these have not responded adequately to competition from private airlines.

Private operators have taken advantage of lax competitive response from government airlines by fixing their tariffs just below government tariffs for equivalent service or by providing slightly better quality of service for the same tariff. Competition has failed to maximise efficiency and minimise costs in the sector.

There are other sources of anti-competitive tendencies. The opening of large green field airports has been accompanied by the closing of existing airports because of a rule that prohibits airports from being located within 150 kilometres of each other. This has resulted in regional monopolies in the supply of airport facilities, enabling airports to charge

prices far in excess of competitive levels which have, in turn, resulted in higher passenger fares and lower capacity utilisation of aircrafts.

The government monopoly in air turbine fuel (ATF) is yet another source of anti-competitive tendencies as it results in a price of ATF which is far in excess of international levels. This generates an upward pressure on passenger fares. Yet another regulation which generates an anti-competitive tendency is the ban on investment by foreign airlines in the domestic airline sector. Such investment could have been a medium for transfer of sound business practices.

Important regulatory changes are in the offing with the passing of the Airport Economic Regulatory Authority (AERA) Bill which has set up an AERA. However, the accent on inclusion of retired government servants in the regulatory authority and significant powers provided to the Central Government to remove AERA's members from office implies that in reality such autonomy would be absent.

The study concludes by making several recommendations targeted towards removing barriers to competition:

- comprehensive regulatory/policy framework that stimulates cost cutting, price reducing and quality enhancing competition through an integrated coverage of aviation and airport infrastructure issues
- rationalisation of pricing of ATF
- permission for entry of foreign carriers into domestic aviation
- multi-airport approach for urban areas

Perception and Awareness Surveys

The survey carried out in 2006 for the 2007 report dealt mainly with perception and awareness regarding competition issues whereas the 2009 report not only replicated the 2006 effort in 2008 but supplemented it with a survey on the state of sector-specific regulations. In both years the questionnaire surveys prepared for stakeholders from business were slightly different than those for other groups of stakeholders (CSOs, academia, government servants, media and technical experts), given the more substantial interest of business in competition issues (attitudes can vary from a dislike of competition in the case of big business to very strong support for it in the case of small business).

The 2008 survey revealed almost universal improvement in perception and awareness over 2006 levels with regard to the competition situation. The only exception to this trend was business's perception that the impact of government practices on competition had worsened.

In higher education, stakeholders expressed the view that the 'requirement for passing of legislations to establish universities' and 'lack of competitive neutrality' were powerful entry barriers. Technical education provided in the country was judged as mediocre. Business people opined that the sector should be exposed completely to the free play of market forces whereas others considered 'exit examinations' and 'monitoring of infrastructure' as useful regulatory measures. The National Assessment and Accreditation Council (NAAC) won overwhelming support for continuation as accreditation authority. Finally, 'lower fees for needy students' were the single most popular option among stakeholders for achieving the right balance among access, quality and cost.

As regards the port sector, it was felt by a majority that competition is practically absent and an umbrella regulator is needed. Moreover, a protectionist tendency by itself or in combination with poor inland connectivity is a good explanation for this lack of competition.

With regard to agricultural markets, a popular perception was that licensing requirements for traders have hurt farmers. Another popular opinion was that dissemination of information (through computer kiosks) might improve their situation.

'Excessive subsidies' were a popular explanation for poor expansion of private capacity in power. The lack of success of power regulators was attributed almost equally to vote politics, poor adaptation by public utilities to the regulatory environment and the absence of regulatory independence.

3. Lessons Learnt: A Synthesis of Study Findings

Competition and Regulation in India, 2007 was focussed almost entirely on the state of competition in the economy. Evolution of competition policy and law in the Indian economy was studied and recommendations were made for the future, taking into account the strengths and weaknesses of the economy and past history, particularly with regard to anti-competitive practices. A survey was also carried out to assess the perceptions and awareness of stakeholders about these issues.

The focus of the 2009 report, on the other hand, was on sector regulation in due recognition of the important role played by such regulation in maximising economic welfare in concert with competition policy and law. The perception and awareness studies for the 2007 report were replicated in the 2009 report. As regards perception and awareness about the state of competition, the broad trend showed considerable

improvement. An additional component recorded perceptions about sector-specific regulations.

Studies of sector specific regulation concentrated on political economy underlying such regulation, efficiency in implementing regulatory laws and the implications of current regulations and their implementation for the level of competition in the economy.

In general, there is a consensus among the findings/recommendations made through sector studies conducted by experts and those expressed through the survey. For example, in agriculture license requirements for traders were considered by both the study experts and stakeholders as competition reducing. In ports, the experts and stakeholders both favoured the creation of an umbrella regulator. Excessive subsidy to certain groups in the supply of power was again criticised by both and also considered an impediment to the expansion of private capacity.

In higher education, loans for needy students were advocated by the sector study as well as the stakeholders as a means to balance access, quality and cost. This consensus in the recommendations and views expressed through sector studies and surveys reinforce our belief in the usefulness of both.

The quality of regulation is seen as varying a lot from sector to sector. In the case of higher education, the view of the experts conducting the sector study was that barriers to competition are very strong and effectiveness of the regulatory authority is poor. There is a need to enhance quality by doing away with bounds on fees and providing a level playing field for all potential entrants – private, foreign or public. In the case of ports it was recognised that substantial improvements in the regulatory environment have been made; yet regulatory independence is absent and there is considerable heterogeneity in regulation across ports. Considerable entry barriers exist and competitive neutrality is again absent.

In the case of agricultural markets, experts attributed the low level of competition to their fragmented nature and poor infrastructure, both physical and for communication. Newly passed regulations were evaluated as being counterproductive as licensing requirements for traders in regulated markets have actually converted traders into monopsonists. The recommendations were for less restriction on trading and better physical and communication infrastructure which allow the farmer to earn higher revenues from his produce through better and more varied access to markets.

The study of the power sector highlighted the supercession of regulators by the government and the faulty practices of excessive subsidy and provision of employment which have impoverished electricity boards and created a crisis of confidence among potential private entrants into the sector. Government operationalisation of open access is faulty and renders it ineffective. In civil aviation deregulation was evaluated as being only partial as airports continue to be regional monopolies and the supply of fuel a public monopoly.

Thus, in a nutshell, some sectors like civil aviation, ports and power have made some headway in modernising regulation while others like higher education and agricultural markets lag behind. Though so called 'independent regulators' have been established in all mentioned sectors barring the last, in reality functional and financial autonomy in regulation are lacking in all of these.

In general, entry barriers exist in all sectors to some degree and these can at least be partially attributed to lack of regulatory independence. Both entry barriers and lack of regulatory independence are also linked to political economy factors. For example, the higher education sector is controlled by bureaucrats and politicians through restrictive regulations which make it almost impossible for commercially oriented private players and foreign players to operate.

In the power sector, the rural rich have lobbied effectively for subsidised tariffs citing egalitarian considerations and the resulting impoverishment of state electricity boards has kept private players away from this sector. In the ports sector, the government has given itself powers to remove members of the regulatory authority and facilitated violation of all principles of competitive neutrality to support its own shipping interests.

Negation of pressures exerted by powerful vested interest groups as well as facilitation of independence of sector regulators are two related tasks which should figure prominently on the agenda of reformers.

4. Recommendations for Future Research and Outreach: A Long Road Ahead

The task accomplished by two reports in the *Competition and Regulation in India* series has been considerable; however, the unexplored terrain still remains vast.

First, many sectors remain unexplored. Petroleum and natural gas promises to be an important sector in the Indian context because of

multiple products produced through a vertically linked production process, the recent discovery of natural gas reserves, the significant entry of the private sector through establishment of large refineries, the importance of transport fuels etc. The Petroleum and Natural Gas Regulatory Board (PNGRB) is still in its infancy. In the future as more developments and data emerge, the analysis of the regulatory environment in this sector promises to be a valuable but complex exercise. The same is true of the coal sector because of the importance of coal in the Indian context. Other sectors which can also be studied include primary education and retail sectors. Both play a significant role in the Indian economy from the point of view of human capital formation and demand generation respectively.

While the reports in this series have so far concentrated on infrastructure sectors, it has to be recognised that other components of the economy have to be nurtured as well to support the development of infrastructure. For example, the recent financial meltdown, by choking private spending on infrastructure, has demonstrated that the regulation of the financial sector is also important for competition in the infrastructure sector and therefore for economic development. Thus, a study of the regulatory environment in the financial sector might be in order.

A similar case can be made for studying the regulation of corporate governance. A lack of regulation of corporate governance can spell disaster for the health of individual investors. Moreover, there is always the risk of private infrastructure contracts not being honoured because of dishonest corporate practices, as illustrated by the *Satyam* scandal and its link to *Maytas*, an infrastructure provider.

Finally, there is scope for applying tools which have never been used in the Indian context. For example, Regulatory Impact Analysis has not been used in the Indian context because of lack of data on costs and benefits of regulations. Exhaustive primary surveys are needed to collect credible data on these variables. Such cost-benefit analyses are necessary for scientific choice among candidate regulations or for passing judgement on existing ones.

Another competition issue which has not received elaboration in this series is the scope for simulating competition in natural monopolies through public-private partnerships (PPPs). This is particularly relevant in the case of sectors such as railways and highways, which again remain unexplored in this series. Of particular importance are the negotiation and renegotiation of contracts underlying PPPs which should be tailored to maximise social welfare. Research should deal with the formulation of such contracts and their negotiation.

Thus, the scope for future research, in terms of unexplored sectors, unused research methods and exploration of new methods of collaboration between private and public parties, remains vast. However, research only constitutes the creation of knowledge; its use for purposes of dissemination, advocacy, creation of awareness and capacity building are equally important.

The knowledge created through these two volumes when disseminated in print, through seminars etc would go a long way in creating a competition culture in the country. At present, the participation of stakeholders, especially consumers, in the regulatory process remains rather weak. The active dissemination of mentioned knowledge can go a long way in stimulating the necessary interest and participation of various groups of stakeholders in the regulatory process. The balancing of interests through varied participation should bring about changes in the right direction – more independence for regulators, diminished regulatory capture and new regulatory laws which are in the broader interests of economic development and in tune with changes in technology.

Perception and Awareness Studies

Introduction

A perception and awareness survey was carried out as a part of the 2009 report (belonging to this series on *Competition and Regulation in India*) in 2008 to build upon the results of a similar survey in 2006. The idea was to generate comparable information at two points of time on various aspects of competition and its culture.

The questionnaire in 2006 was devoted solely to the evaluation of competition climate in the country. Questions were asked under four self explanatory heads: 'level of competition' in which respondents were asked about their perceptions of product variety and choice; 'nature of market practices' to gauge perceptions about the pro or anti-competitive nature of prevailing market practices; 'awareness and knowledge of stakeholders' which tested the same; and stakeholder perceptions about the 'impact of government policies' to gauge how supportive policies are towards the generation of competition in the economy.

Given the uniqueness of the position of business *vis-à-vis* the impact of competition, it was decided to carry out separate surveys for business people and other stakeholders.

Answers to questions under each head were then converted into numerical scores using a systematic method to generate a sub-index pertaining to that head. The average of these sub-indices yielded the 'competition perception index' which was computed separately for each stakeholder group.

In 2008, the survey had two components: the first replicated the survey of 2006 and the computation of various associated indices. The second was used to gain an insight into the perceptions of people about sector-specific regulation. The survey results are attached as an Annexure to the chapter.

1. Composition of Sample

Table 2.1 compares the composition of the non-business samples of 2006 and 2008 respectively. The sizes of the two samples are similar – in the region of 480-500 respondents. Similarly, the samples for business sector in the two years are of similar size.

There are small differences in the composition of the non-business sample – 2008 has a significantly smaller representation of civil society organisations (CSOs) and a much greater percentage representation of other experts/practitioners. However, this is because of the nature of response not because of the sample design. Moreover, each sub-sample is large enough for it to be representative of the particular stakeholder group sampled. The indices for ‘all non-business stakeholder groups combined’ have been worked out using the component weights of the 2008 sample.

2. Sub-index Computation

Under any given head, each question had various options which could be graded according to their desirability *vis-à-vis* the extent of competition using integer scores such as 1, 2, 3 etc. Given that the number of options varied from one question to another, these numerical scores were normalised to give scores varying between 0 and 100. Such normalised scores could then be averaged across questions under each head to arrive at the values of associated sub-indices.

3. Comparative Results of the First and Second Surveys

With respect to scores for the entire non-business sample, considerable improvements were seen from 2006 to 2008 in perceptions about the ‘level of competition in the market’ and ‘impact of government practices’ (around 10 percent for each sub-index) and much smaller improvements for the other two sub-indices (Tables 2.2, 2.3, 2.4 and 2.5).

The overall competition perception index for the non-business sample increased from 50.66 to 54.23 – a considerable increase of seven percent (see Table 2.6). This implied that competition in the economy had been enhanced considerably.

As far as individual stakeholder groups were concerned (see Table 2.6) all non-business stakeholder groups except CSOs (which recorded a small decrease) recorded increases in the overall competition perception index. Impressive increases were seen in the media, from 49.72 to 58.76 (a

very large increase of 18 percent), and from 52 to 57.22 for academia (a significant increase exceeding 10 percent) whereas government officials and 'others' recorded smaller increases.

As far as the business sample is concerned the improvement in the overall competition perception index was considerable – from 49.11 to 54.24 (around 10 percent). The largest improvements were perceived in the level of competition in the market (41.48 to 55.86 or around 35 percent) and in awareness/knowledge (57.84 to 67.08 or around 16 percent). It was only in the case of 'impact of government policies' that deterioration was recorded (see Table 2.7)

4. Sector-specific Survey Results

Higher Education

In higher education, a majority within each stakeholder group (see Table 2.8) took a rather dim view of the requirement for legislations to set up universities and lack of competitive neutrality and considered these to be entry barriers – the strength of these majorities varied from 62.7 ('others' regarding the requirement for legislations) to 96.3 percent (media regarding competitive neutrality).

If the entire sample of non-business stakeholders is looked into, 69.7 percent considered the requirement for legislation for entry to be an entry barrier and 76.9 percent considered the introduction of competitive neutrality as necessary. For the business sector, the corresponding figures were even higher at 78.4 and 83.8 respectively. These figures seem to suggest that a lot of investment potential in the private sector has not materialised because of an unhelpful regulatory environment.

All stakeholders perceived the overall quality of technical education to be quite mediocre. Scores across various categories of stakeholders varied from 2.1 out of 4 (for 'business' and 'others') to 2.4 for CSOs and media respectively on a scale where 0 stands for very poor quality, 2 for 'satisfactory quality' and 4 for 'very good quality' (see Table 2.9). For the entire sample of non-business stakeholders, the average score was 2.2.

Table 2.9 provides the intensity of support of different stakeholder groups for various policy options. This intensity is measured through an index which is obtained from the ranking of various policy options and bounded by a possible maximum of 100.

As far as the various choices regarding authorities to carry out accreditation are concerned, non-business stakeholders express a preference for the National Assessment and Accreditation Council (NAAC)

over 'private internationally reputed agencies' or 'any reputed agency'. The same preference is expressed in a more emphatic manner by business. Among the various options given for achieving a balance among access, quality and cost (see Table 2.10) non-business stakeholders seemed to convey a slight preference for 'lower fees for needy students'. Business stakeholders, on the other hand, were indifferent on the whole between this option and 'students choosing among institutions according to their paying capacity'.

Ports

Stakeholders across the board overwhelmingly expressed the view that inter-port and intra-port competition is absent in India and expressed their support for a single regulator for all ports.

Those who expressed the view that inter-port and intra-port competition is indeed absent were also asked the reasons for the same. If the entire sample is considered then 22.6 percent is attributed to 'poor inland connectivity' alone, 34.1 to protectionist tendencies alone and 43.3 percent to both options. Among the various stakeholder groups, government officials and academia were overwhelmingly of the opinion that poor inland connectivity alone cannot account for poor competition.

Agricultural Markets

A majority of stakeholders were of the opinion (Table 2.13) that: a) licensing for agricultural traders is harmful for farmers (as it obviously decreases competition for farm products facing farmers); and b) farmers would benefit from information disseminated through computer kiosks. Support for computer kiosks was emphatically expressed by various groups – 81 percent of non-business stakeholders supported this option and within this class, among media the support was overwhelming (90.4 percent).

Relative support for competing policy options was measured through an index computed from rankings with a maximum possible value of 100. For meeting the objective of reduction of the length of the intermediary chain there was a slight preference for better infrastructure as a medium among both business and non-business stakeholders (Table 2.14). Direct farming was generally discarded by business as a desirable medium (Table 2.14). When asked about whether regulated markets had been successful in reducing the length of the chain of intermediaries and enhancing competition, non-business stakeholders exhibited almost equally strong preferences on an average for the three available options (see Table 2.14) whereas business was mostly dismissive of the notion that regulated markets had enhanced competition but displayed equal preference on an average for the other two options.

Power Sector

When asked to choose among various possible reasons for the lack of expansion of capacity in power (see Table 2.15), among non-business stakeholders the most popular option was 'excessive subsidy' and the least popular was 'captive generation by industrial consumers of power'.

When asked about reasons for slow implementation of open access (Table 2.16) stakeholders were almost equally divided between the potential choices of high consumption surcharge and uncertainty in power supply. The same result was observed when stakeholders were asked to choose among policy options for reducing monopoly: independent regulator providing non-discriminatory open access and the development of small localised power plants (Table 2.16).

5. Conclusion

The survey carried out in 2008 revealed an almost universal improvement over 2006 in perception and awareness with regard to the various dimensions of the competition situation in the economy across different groups of stakeholders. The only discordant note was struck by business's perception that the impact of government practices on competition had worsened.

The survey also came out with important findings with regard to sector-specific regulation. A majority of stakeholders considered both the 'requirement for the passing of legislations for establishment of universities' and 'lack of competitive neutrality' as powerful entry barriers. The quality of technical education was judged as mediocre. Business people overwhelmingly felt that higher education would function best if left to market forces whereas non-business people seemed to consider other options such as 'exit examinations' and 'monitoring of infrastructure' as equally good for regulating this sector. NAAC won overwhelming support as an accreditation authority. The strongest support for achieving the right balance among access, quality and cost in higher education went to the option of providing lower fees to needy students.

As regards the port sector, a majority of stakeholders felt that competition is practically absent and that an umbrella regulator is needed. Out of the stakeholders who feel that competition is absent most feel that poor inland connectivity alone is an inadequate explanation for this absence and protectionist tendency by itself or in combination with the first factor is a better explanation.

With regard to agricultural markets, a majority of stakeholders in all groups felt that licensing requirements for traders have hurt farmers while dissemination of information through computer kiosks would benefit them. The business sector, in stark contrast to non-business stakeholders, came out against direct farming as a means for reducing the length of the chain of intermediaries separating the consumer from the farmer. Similarly, it did not recognise any positive effect of regulated markets on competition.

The most popular explanation for poor expansion of private capacity in power turned out to be the policy of granting excessive subsidies; captive generation was considered a suitable explanation by very few stakeholders. The lack of success of power regulators was attributed almost equally to vote politics, poor adaptation by public utilities to the regulatory environment and the lack of powers granted to regulators.

Annexure to Chapter 2

The Survey Results

**Table 2.1: Respondents by Stakeholder Group
(All except business)**

Academia	118 (23.65)	126 (26.25)
CSOs	78 (15.63)	136 (28.33)
Government Officials	99 (19.84)	94 (19.58)
Media	54 (10.82)	59(12.29)
Other experts/practitioners	150(30.06)	65(13.54)
Total	499 (100)	480 (100)

Note: Figures in parentheses denote percentages

**Table 2.2: Stakeholders' Perception on Level of Competition
(All except business)**

	2008	2006
Overall Score	63.10	58.63
Academia	63.83	57.57
CSOs	60.36	57.53
Government Officials	63.10	58.34
Media	70.70	57.30
Others (Experts/Practitioners)	61.22	60.70

Note: Values stated are those of the associated sub-index with a possible range of 0-100

Table 2.3: Stakeholders' Perception on Nature of Market Practices (All except business)

	2008	2006
Overall Score	42.44	40.71
Academia	43.50	40.36
CSOs	40.43	40.05
Government Officials	41.84	39.00
Media	45.99	38.60
Others (Experts/Practitioners)	41.79	43.21

Note: Values stated are those of the associated sub-index with a possible range of 0-100

Table 2.4: Stakeholders' Awareness/Knowledge (All except business)

Overall Score	57.58	55.01
Academia	60.88	60.05
CSOs	56.07	58.54
Government Officials	51.66	58.16
Media	63.24	55.15
Others (Experts/Practitioners)	57.64	47.06

Note: Values stated are those of the associated sub-index with a possible range of 0-100

Table 2.5: Stakeholders' Perception on Impact of Government Policies (All except business)

Overall Score	53.80	48.28
Academia	60.67	50.01
CSOs	43.96	46.87
Government Officials	58.15	51.86
Media	55.12	47.82
Others Experts/Practitioners	50.15	45.45

Note: Values stated are those of the associated sub-index with a possible range of 0-100

**Table 2.6: Overall Competition Perception Index
(All except business)**

	2008	2006
Overall Score	54.23	50.66
Academia	57.22	52.00
CSOs	50.20	50.75
Government Officials	53.69	51.84
Media	58.76	49.72
Others	52.70	49.11

Note: Values stated are bounded by 0 and 100

Table 2.7: Survey Results for the Business Sample

	2008	2006
Overall Competition Perception Index	54.24	49.11
Level of Competition in the Market	55.86	41.48
Nature of Market Practices	45.73	44.36
Awareness/Knowledge	67.08	57.84
Impact of Government policies	48.27	55.65

Note: Values stated are bounded by 0 and 100

Table 2.8: Higher Education: Perceptions about Entry Barriers

	Legislation to set up a university an entry barrier	Free entry and a level playing field for the private, public and foreign universities desirable
All stakeholders other than business	69.7	76.9
Academia	70.3	76.9
CSOs	76.9	67.9
Government Officials	65.7	79.8
Media	85.2	96.3
Others	62.7	72.6
Business	78.4	83.8

Note: Figures denote percentages of stakeholders supporting given statements

Table 2.9: Overall Quality of Technical Education

	Score
All stakeholders other than business	2.2
Academia	2.3
CSOs	2.4
Government Officials	2.2
Media	2.4
Others	2.1
Business	2.1

Note: The range of possible values is 0-4

Table 2.10: Policy Choices for Higher Education

Issue 1			Issue 2			Issue 3		
Ways to regulate education	All stakeholders other than business	Business	Who should be given the authority to carry out accreditation?	All stakeholders other than business	Business	How to achieve balance among access, quality and cost?	All stakeholders other than business	Business
Strict monitoring of physical infrastructure class room size etc.	65.8	70.8	NAAC	72.8	82.4	Lower fees for needy students	70.2	72.5
Exit examinations	65.5	61.5	Private internationally reputed agencies	65.1 62.0	57.7 55.4	Subsidised education loans for needy students	64.0	57.7
Market forces	68.9	62.5	Any rating agency			Students can choose among institutions according to their paying capacity	65.9	73.0

Note: These scores are indices of importance given to various options based on rankings, with a maximum possible score of 100

Table 2.11: Port Sector: Policy Options and Views

	Inter-port and intra-port competition is absent in India	One regulator desirable for all regulatory functions
All stakeholders other than business	70.7	76.9
Academia	84.8	56.9
CSOs	60.7	92.5
Government Officials	56.9	62.5
Media	65.7	60.5
Others	75.8	77.5
Business	61.3	62.1

Note: Figures give percentages expressing support for given views and options

Table 2.12: Reason for Absence of Competition in the Port Sector (percentage supporting each option)

	Poor inland connectivity	Protectionist tendency	Both
All stakeholders other than business	22.6	34.1	43.3
Academia	14.4	36.1	49.5
CSOs	19.1	19.1	61.7
Government Officials	15.0	41.7	43.3
Media	32.4	35.1	32.4
Others	32.4	34.3	33.3
Business	26.1	21.7	52.2

Note: Figures give percentages expressing support for given views and options

Table 2.13: Agricultural Markets - Views about Policies/Measures

	Licensing for agricultural traders harmful for farmers	Will farmers benefit from information provided through computer kiosks etc?
All stakeholders other than business	63.1	81.0
Academia	60.0	86.7
CSOs	68.6	79.1
Government Officials	55.0	82.2
Media	62.7	90.4
Others	68.1	72.6
Business	67.6	62.5

Note: Figures denote percentages voting for stated options

Table 2.14: Support for Policy Options/Views regarding Agricultural Produce Markets

	Issue 1		Issue 2		
	All stakeholders other than business	Business	To what extent have regulated markets succeeded in reducing the chain and enhancing competition?	All stakeholders other than business	Business
How can the length of the intermediary chain be reduced?					
Better Infrastructure	69.0	68.7	No to both due to poor infrastructure	65.6	73.5
Contract farming	66.3	65.3	Partially in enhancing competition only	68.4	25.6
Direct farming	64.7	23.6	No to both due to the requirements of licensing	65.9	69.0

Note: These scores are indices of importance given to various options based on rankings, with a maximum possible score of 100

Table 2.15: Reasons for Lack of Expansion of Private Capacity in Power

	Lack of competitive neutrality	Too much subsidy	Captive generation by industrial consumers	All the above
All stakeholders other than business	26.7	36.0	10.3	27.1
Academia	23.1	28.2	5.1	43.6
CSOs	32.5	36.4	9.1	22.1
Government Officials	27.6	33.7	13.3	25.5
Media	31.5	46.3	14.8	7.4
Others	24.2	39.6	11.4	24.8
Business	37.8	29.7	8.1	24.3

Note: Figures denote percentages voting for stated options

Table 2.16: Issues in Power

Issue 1		Issue 2			Issue 3	
Reason for slow implementation of open access	All stakeholders other than business	Ways in which monopoly power can be checked	All stakeholders other than business	Business	Reasons for lack of success of regulators	All stakeholders other than business
High consumption surcharge	50.4	Close regulation by an independent regulator to ensure non-discriminatory open access	51.8	54.50	Public utilities not adapting well to the regulatory environment	65.8
Uncertainty in power supply	49.6	Develop small localized power plants	48.2	46.40	Can only propose tariffs; not impose them	68.7
					Vote politics	65.3

Note: For issue 1 and 2 percentages in support of options are given whereas for the last issue an index of support is stated which is bounded above by a value of 100

Competition and Regulation in Agricultural Markets in India

Introduction

The price mechanism has failed to work for many primary agricultural commodities like wheat and rice as the government has ended up distorting the incentives for development and functioning of relevant markets by setting a floor price. On the other hand, the promotion of regulated markets has perpetuated exploitation of farmers by traders resulting in low prices at the farm gate, unreflective of a competitive demand and supply situation. There is hardly any direct government intervention in the production and investment decisions of farmers but the government does influence the legal, material and economic environment in which farmers operate¹. As a result, the supply chain has remained filled with intermediaries, with very little extension services available.

Price discovery by the producers of agricultural commodities is almost non-existent, and information flow is poor. On top of these are issues of small agricultural land holdings, low investments, inadequate irrigation facilities, and lack of market infrastructure all of which result in low productivity, little value addition and unorganised marketing activities, which in turn, lead to reduced and unrealised farm income. Till such time the agricultural markets remain regulated, fragmented and rudimentary, the income of farmers will not increase and the ills of the agriculture sector will remain. This, in turn, will mean a lack of investment in agriculture. Thus, a vicious cycle works.

Several factors have been responsible for the state of affairs, especially on the supply-side, but perhaps nothing has been more damaging than myopic government policy, which has repressed the demand side of the market. As a result, while markets for non-agricultural commodities have developed, especially after the initiation of reforms in the early 1990s, markets for agricultural commodities have not changed much from their rudimentary forms.

For instance, the agriculture supply chain for wheat in India has about nine intermediaries as compared to only two in the US. This has implications for prices of agriculture produce as there is a mark up of around nine percent in the US in agriculture produce from the farm level to the final buyer, as compared to a 135 percent in India. Consequently, every year India wastes food products worth more than Rs 50 billion (US\$1bn) through post-harvest handling losses reflecting the pressing need for streamlining the agriculture supply chain².

In this paper, the focus is on agricultural markets rather than the sector *per se*. As a result, issues like the green revolution and fertiliser policy are not discussed. The objective has been to look at current practices of market distortion and provide remedies for the same. With this objective, the paper is divided into three sections and a conclusion.

Section 1 focuses on the political economy of agricultural markets. In India, both the Central as well as state governments have been supporting agriculture and agricultural marketing through various kinds of policies and efforts. The latter is of two kinds – developmental and regulatory. The idea is to bring out how such efforts and policies have been shaped by the interests of stakeholder groups and politicians.

The governmental policies discussed here primarily relate to procurement and minimum support prices (MSPs), and the banning of futures markets. This section also deals with aspects of legal intervention. Here the APMC Act and its implications for the supply chain are discussed.

Section 2 (on Competition Assessment) deals with the implications of agricultural policies and regulations for the level of competition. Here the discussion is two fold. First it needs to be understood that competition in Indian agriculture or the lack of it, is different from other sectors and although agricultural markets in India are regulated, there is no separate regulator for the sector as inherently the characteristics of the sector do not lead to a situation of ‘market failure’. The other part of the section is the actual assessment of competition in agricultural markets in India.

Section 3 looks at implementation modalities, i.e. how well policies and laws have been implemented/enforced and the extent to which actual implementation/enforcement has deviated from stipulation on paper.

Section 4 deals with solutions or the way forward. First, infrastructure requirements for agricultural markets are discussed. Here issues like ‘certified warehouses’, ‘warehouse receipts’, direct marketing followed by vertical integration are looked into. Futures market or the lack of it is discussed next. A conclusion briefly sums up the discussion.

1. Political Economy of Agricultural Markets

Government Procurement Policy and MSPs

At the time of Independence, while production of agricultural commodities was localised, not all pockets of the country produced enough to meet the needs of the local population. As a result, there was a need to integrate markets to ensure the transfer of produce from surplus to deficit areas. This required the setting up of an institutional mechanism as the local markets operated in a vacuum.

The working of agricultural markets has been distorted by a host of government policies. Two such government policies are the provision of a 'MSP' for identified agricultural commodities (primary commodities)³ and the procurement policy implemented through the Food Corporation of India (FCI).

This price or MSP is not binding and the farmer can sell his produce in the open market. The rationale for this is protection against price risk, i.e. if the price in the open market is below the declared MSP, the farmer has the choice of selling the produce to the government.

Even with free interplay of demand and supply forces determining prices and quantities marketed, the prices of agricultural produce may drop to unviable levels due to a glut. Price support then becomes important. The government purchases in such situations can prevent a sharp fall in prices. Thus, a minimum price floor set by the government can ensure viability of production. This is the basis for procurement policy and MSPs.

However, over the years, the efficacy of the market was lost in the process as MSPs have risen dramatically. The 'MSP' is no longer an exigency to be invoked by farmers in the event of a collapse in market prices. Instead, it is often higher than the market price, and has become a highly inefficient subsidy⁴.

It must be noted that though on paper the MSP is applicable to 25 major agricultural commodities, covering all important cereals, pulses, oilseeds, cotton, jute, sugarcane and tobacco, in practice this facility is available only to a small number of farmers in Punjab, Haryana, Andhra Pradesh and Uttar Pradesh (marketable surplus areas), and that too primarily for wheat and rice. Hence, there has been a gradual shift in the acreage to the production of wheat and rice. This has come about at the expense of other crops like maize, cotton and oilseeds. Assurance of sale at reasonable prices through this system implies that there is no

incentive for the farmer to improve quality beyond the minimum acceptable level.

Political economy considerations have played an important part in the shaping and implementation of support pricing policy. On the producer side it is only the farmers with marketable surpluses of wheat and rice (a minority) that benefit from support pricing. A majority of wheat and rice farmers are actually net consumers of these as their production falls short of subsistence levels. These farmers not only do not benefit from support pricing but are also adversely affected by it⁵. This is because support pricing often leads to a withdrawal of produce by large farmers from the open market. This, in turn, implies that there is an upward pressure on market prices. Being net consumers, small farmers have to buy produce at a higher price in the open market, given that the public distribution system (which is supposed to provide food grains to consumers at subsidised prices) is ineffective in rural areas.

It seems therefore that justifying price support on the basis of the 'need to provide price support for the vulnerable' is actually not defensible as the small and vulnerable farmers do not actually benefit from it. The minimum support pricing policy, as it is implemented now, distorts markets to result in sub-optimal allocation of land resources and higher consumer prices facing small farmers. The only reason why this policy has been persisted with, despite its adverse consequences being much larger than its positive ones, could be the pressure exerted by vested interests on the government. This is highly probable as 'large farmer' lobbies, especially those involved in the production of food grains, are very strong in India.

The procurement policy, which is implemented through support pricing and the consequent purchases of food grains by the government from farmers, should be restricted to maintaining buffer stocks but has kept on accumulating stocks beyond buffer requirements (for example, there were 51.41 million tonnes of wheat and rice in the central pool as on October 01, 2002, as against buffer norms of 18.1million tonnes). This has virtually killed private trade in food grains since the MSP is higher than the market price.

The ever increasing MSP has not only taken these food grains beyond the purchasing power of the rural and urban poor, but has also completely eroded their competitiveness in global markets. The food subsidy bill now stands at Rs 21,200 crores, out of which the carrying cost component is now estimated at 37 percent. These additional negative consequences of support pricing and procurement lend further support to the political economy explanation of these policies.

Banning of Futures Market

Another key policy change that happened was the banning of futures markets in 1966. As a result, “the formal agricultural commodities markets have been restricted to localised wholesale markets, while the derivatives markets largely went underground⁶”.

A future contract is a contract to deliver a specified quantity of a commodity at a specified date and price. The future is a promise and so no money transaction takes place although a margin amount is maintained. These markets in agricultural commodities also confer other benefits – salutary effect on spot prices which benefits farmers, risk free trading, standardisation of sales contracts etc.

The first of the derivatives markets in India was the cotton forward markets which started as far back as 1875⁷. Despite a successful past, after independence in 1952, the Forward Contract (Regulation) Act was enacted. The Act was to regulate forwards and futures market trading. The Forward Markets Commission was subsequently established as the regulator. The Act applied to all contracts wherein the delivery of goods occurred after a period of 11 days. However, “regulators viewed markets in general with suspicion and derivatives market as the terrain of unscrupulous speculation⁸” (Chakrabarti, 2004). These markets as a result, failed to blossom. Then in 1966 the futures market was banned. This was done so that the reliance on the price control mechanism (on which there was an overwhelming accent till reforms were initiated in 1991) was enhanced.

Following the Khusro Committee Report in 1980, futures were reintroduced, but only in some select commodities that did not have a very significant role in the economy: castor seed and oil, jaggery, jute, pepper, potato and turmeric. As a result, “the new futures markets never regained the levels of liquidity that they had enjoyed earlier⁹”.

Despite the above mentioned benefits to the farm economy from futures markets, the ban on it followed by only severely restricted functioning, hints at political capture. As mentioned in the chapter on higher education, many needless and often harmful regulations are in force in many sectors of the Indian economy and can only be explained by the inclination of the government/bureaucracy to extend its turf and enhance power.

APMC Act and Market Distortion

A major government intervention that has perpetuated exploitation of farmers at the hand of the trader instead of alleviating it is the law related to regulated markets and its network throughout the country.

The APMC Acts of the various states establish and govern these agricultural markets¹⁰.

In order to mitigate the market handicaps of producers/sellers at the wholesale assembling level, and protect the interests of the farmers, the Central Government has always favoured increasing the number of wholesale markets and also regulating them. Wholesale markets have been established in most states under the respective APMC Acts. There are in all 7,293 wholesale and 7,161 regulated markets¹¹ in the country. However, the rural periodic markets, in general, and the tribal markets, in particular, remained out bounds of government regulation.

The APMCs were implemented with the salient objectives of ensuring fair and remunerative prices to the growers through mandatory auctions of the produce at determined market places called *mandis* or regulated markets; and of ensuring payments to growers as per the price determined at the auctions. The basic objective of market regulation was thus to regulate trade practices, increase market efficiency through reduction in market charges, reduce intermediation and protect the interest of the producer-seller.

The Act empowers the state to declare specified areas as market areas to be developed, serviced and regulated by the 'market committees'. Everyone involved in the trade of buying agriculture produce from the growers is to obtain a license from the market committee, while the growers in regulated areas are prohibited from selling their produce to any one other than licensed traders. The transactions between buyers and sellers are made through 'commissioned agents', registered with the market committees, in designated yards, outside which transactions in agricultural produce are prohibited. These yards also become a platform for providing extension services like supply of inputs, storage places etc.

According to the APMC Acts, the 'market committees', constituted by the state governments manage the markets. Prices are supposed to be fixed through an open auction in a transparent manner in front of an official of the market committee. Charges such as the commission of the agent and labour charges for cleaning of produce are clearly defined and no new charges can be deducted from the sales proceeds from farm produce. A sub-committee exists for resolution of price disputes¹². No person or agency can carry on any wholesale marketing activity in the market area (once declared so), except through a license issued by the market committee (under whose jurisdiction it falls). This has made the licensed traders a dominant force. As a result exploitative practices and procedures have taken root and this prevents development of free and competitive trade in agriculture.

The agricultural supply chain therefore comprises of farmers who first sell it to the nominated members of the 'market committees' who are *de facto* monopsonist buyers, and they, in turn, sell it to a near monopsonistic trader and so on, till the product reaches the final consumer at retail outlets. The distinguishing feature of the supply chain that links the farm to the fork is therefore a long chain of monopsonistic or near monoposonistic intermediaries in six or seven stages. Therefore, farmers get 15-30 percent of the price that consumers pay.

In effect then, the APMC Acts ensured that the sellers or the primary producers (farmers) were bound and limited to sell their produce in these market yards/regulated markets or *mandis*. This restriction, over time, developed into a monopolistic regime hindering innovations, choices, freedom and change. Though the objective of fair and remunerative prices to the farmers through mandatory auctions and timely payments was laudable, the short sightedness of the Act meant that the freedom required for innovation and change was curtailed.

The regulation of markets has improved their functioning and helped in reducing the multiple trade charges and levies on the producer-seller and facilitated verification of accurate weights and scales, establishment of market committees in which the agricultural producer is given due representation, judicious utilisation of market funds, fair settlement of disputes, arrangements for better storage facilities and market intelligence etc. But the existing machinery has failed to check trading malpractices and made the agricultural marketing system highly restrictive and inefficient.

Processing industries also cannot buy directly from farmers, except through notified markets where intermediaries take away a sizeable proportion of the price of the produce. There is no direct link up between farm and factory. Hence, agricultural production is oriented towards direct consumption, to the detriment of processing and value addition. The monopoly of government regulated wholesale markets has prevented development of a competitive marketing system in the country, providing no help to farmers in direct marketing, organised retailing, smooth raw material supply to agro-processing industries and adoption of innovative marketing systems and technologies.

The Indian government finally took note of the shortcomings in 2000. The Ministry of Agriculture appointed an Expert Committee followed by an Inter Ministerial Task Force to review the present system. The recommendations were discussed at the National Conference of state ministers in September 2002. Later, a Standing Committee of state ministers in January 2003 also went through the recommendations. The

unanimous view was that reforms in the agricultural marketing sector were necessary to move away from a regime of controls to one of competition.

Accordingly, the APMC Act was sought to be amended and a draft model legislation entitled, 'State Agricultural Produce Marketing (Development and Regulation) Act, 2003' was made. This provided for the establishment of private markets, direct purchasing (and sale) centres, contract farming and the promotion of public-private partnership (PPP) in the management and development of agricultural markets in the country.

The draft model law, therefore, redefined the role of APMCs to promote alternative marketing systems, contract farming, direct marketing and farmers/consumer markets, apart from provisioning for State Agricultural Produce Marketing Standards Bureau for promotion of grading, standardisation and quality certification of agricultural produce that would facilitate pledged financing, among other benefits.

Despite all these and the good intentions displayed by the government, the draft model law failed to curtail the most important barrier – the mandatory regulatory role of APMCs in the market area. The sellers still do not have the option of selling their produce in unregulated markets that are outside the purview of the APMCs. It must be understood that the APMC Act had laudable objectives, but till such time that the regulated markets remain mandatory, competition will always be the casualty and farmers will realise a fraction of the final price paid by consumers.

As discussed in Section 3, there are various other ways of introducing competition in agricultural markets and preventing exploitation of farmers at the hands of traders. However, the system opted for was one in which the government was actively involved in regulation through the appointment of 'market committees' as well as 'commissioned agents'. This not only extended the turf of government officials and politicians but also provided them with rent seeking opportunities. In other words, political economy factors might constitute a fairly plausible explanation for the formulation and implementation of the APMC Act.

2. Competition Assessment

Ensuring fair competition in markets results in benefit to the consumers in terms of price and quality. Yet there are government policies, rules and regulations that result in the opposite.

Regulation and Competition Issues in Agricultural Markets

In general, there are four conditions under which a competitive market fails to deliver efficient outcomes. These are presence of monopoly powers (naturally or otherwise), presence of negative externalities, public goods and asymmetric information.

Under any of these four conditions of market failure, a regulator for the market is needed to ensure that consumers are not exploited. Therefore, when a market has an official regulator, the basic underlying assumption is that there are impediments to the functioning of competitive markets.

However, in Indian agriculture, a strange situation exists. There is a network of regulated markets, where and only where the primary producers can sell their produce. On the other hand, buyers are required to have a license. This limits participation and therefore empowers only a few to participate on the buyers' side. This increases the bargaining power of the licensed buyer-trader. Moreover, in the absence of a national or even broader regional regulator, tacit collusion or cartelisation on the buyer-traders' side can easily take place.

In other words, the very requirement for exchanges in agricultural produce to compulsorily take place within the designated regulated markets and only with licensed traders participating on the buyers' side has meant that the market is a near monopsonistic one – a buyer's market instead of a seller's market – thus breaking down the very basis for competition.

Further on, as these traders are few, the sale to final consumers takes place in a market which is monopolistic. Thus, prices are not determined by free play of demand and supply.

In other words, competition is throttled by the regulations in place. At the same time, since other conditions for market failure exist, there should be an independent regulator. Technically, the 'market committees' in the various regulated markets under APMC Act are supposed to perform this function but these bodies lack transparency. Moreover, there is a plethora of these bodies, and a complete lack of harmonisation. As a result, the regulator(s) is (are) reduced to exist on paper only.

Under such circumstances, the options are clearly two – either a national or regional regulator should be in place, which is further empowered to curtail collusion among traders and is transparent in its functioning; or the regulatory requirements that curtail competition should be removed. The second option is much simpler to exercise.

Competition Assessment Results

To ensure that the fruits of fair competition are reaped, it is essential to identify and address the practices and policies prevailing in agricultural markets. The objective of 'competition assessment' is to examine the potential harm/benefit that might be caused to competition by the stipulated rules and regulations. Table 3.1 summarises the competition assessment of agricultural market regulation in India:

Table 3.1: Competition Assessment of Agricultural Market Regulation

S. No.	Factors Impeding Effective Competition	Present Status
1	Large number of buyers and sellers	<p>Participation in the market, where agricultural commodities are sold and bought (exchanged), is regulated through the APMC Act.</p> <p>The Act results in regulated agricultural markets with near monopsonistic elements – large number of sellers but a few buyers.</p> <p>This impedes competition.</p>
2	Freedom of entry and exit	<p>Freedom of entry and exit apply to sellers.</p> <p>Exchanges take place at two levels – first when the farmer enters and sells his produce in the market called a <i>mandi</i>, and the second when the consumers buy the produce.</p> <p>For the producers of agricultural commodities – the farmers – there is freedom of entry and exit. So is the case for the intermediaries who are the sellers in the next stage. However, the two sets of sellers are mutually exclusive.</p>
3	Barriers to participation	<p>The farmer can sell his produce in the market place only to licensed traders and cannot sell directly to urban consumers.</p> <p>Therefore, there are barriers to participation in the market place, both for the suppliers as well as the buyers. The buyers cannot participate in exchange with primary producers while the primary producers cannot deal with final consumers.</p> <p>This barrier to participation comes in because of the law – the APMC Act, which impedes competition.</p>

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S. No.	Factors Impeding Effective Competition	Present Status
4	Price discovery	<p>The government does not regulate prices directly, but its policies hamper price discovery by the primary producers and therefore dampen growth of the sector.</p> <p>By setting minimum prices and also procuring certain items like wheat and rice, the government kills incentives for improving quality as well as for private trade to thrive.</p> <p>Moreover, with no direct marketing and lack of infrastructure, the sellers have to sell the perishable items once they get it into the market place. Thus, price discovery is not possible.</p>
5	Barriers to raising finances	<p>Farmers are allowed to raise finances but lack of organised financial markets in rural areas coupled with high transactions costs and risk of default stemming from likely crop failure and other uncertainty make the farmers unsuitable for debt.</p> <p>They are also not able to produce collaterals. Thus, their debt ridden state and lack of credit history become barriers to raising finances.</p>
6	Grants of exclusive rights to operate	<p>Since the APMC Act mandate licenses for intermediary players, only those with licenses trade, and as a result of their small number capture a large part of the purchasing power of consumers.</p>
7	Lack of competitive neutrality	<p>To the extent that the MSP has ended up becoming higher than the market price for several years now (applicable to 25 major agricultural commodities, covering most important cereals, pulses, oilseeds, cotton, jute, sugarcane and tobacco), it has become a highly inefficient subsidy. Large scale public sector procurement and storage has led to a shrivelling of the private sector in the trade, storage and transportation of commodities. Thus, in effect there is a lack of competitive neutrality.</p>

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S. No.	Factors Impeding Effective Competition	Present Status
8	Limitations in provision	<p>There are supply side constraints in general. These are as follows:</p> <ul style="list-style-type: none"> ● Small agricultural land holdings; ● Low investments; ● Inadequate irrigation facilities; ● Lack of market infrastructure; ● Low productivity; ● Little value addition; and ● Unorganised marketing activities.
9	Reduction in potential for competition	<p>The mandatory provisions of the APMC Act need to be scrapped as these hamper competition by limiting participation from traders. Direct marketing should be allowed and contract farming encouraged.</p>
10	Do farmers have enough information?	<p>Information is the key to better produce and realisation of better prices. Extension services are practically absent and so key information on seeds, weather and markets is absent.</p> <p>To bring in transparency the supply chain needs to be shortened, i.e. the number of intermediaries needs to be lowered. Marginal farms should pool their information requirements so that information on weather, seeds and markets is not costly.</p>

A strategic perspective is needed to drive public policy both at the Central and state government level. The way out is to open this constriction mandated by the APMC Acts, and allowing competition. This can be done either by abolishing the APMC or by amending the regulations in such a fashion that freedom is ensured. It can remain as an alternative and not mandatory mechanism.

The barriers to participation need to be removed, especially the mandatory requirement of licensing for traders. Direct marketing and more freedom to the sellers should be allowed.

3. Implementation Modalities

As mentioned earlier, the APMC Act has had some positive ramifications. Many of these were, however, muted by the nature of implementation of this Act. Some of these deficiencies in implementation have been captured below.

For example, contrary to what has been mandated, one third of regulated markets in the country were reported as not having a common auction platform. Infrastructure for marketing of perishables like fruits and vegetables was described to be terribly inadequate¹³. As a result, the extent of competition which could potentially have been facilitated by these markets was not achieved.

Concerns have also been voiced that resources mobilised through taxes imposed in the regulated markets have not been used to develop market facilities to the extent possible¹⁴. Traditional non-regulatory systems are still in vogue in states like West Bengal, Bihar and Orissa¹⁵.

Apart from the implementation of APMC Acts, that of support pricing has also deviated from what has been specified on paper. As mentioned earlier, it was meant to be applicable for 25 major agricultural commodities, covering all important cereals, pulses, oilseeds, cotton, jute, sugarcane and tobacco. In practice only rice and wheat have been covered and such coverage is only effective for the large farmers who alone have marketable surpluses. Thus, instead of being a mechanism for covering price risks, neutral towards how land is allocated, it has become a major source of distortion in resource allocation resulting in reallocation of land towards these food grains from other crops as well as regressive income transfers from small farmers to large farmers.

Thus, it can be concluded that though policies pertaining to agricultural markets have left a lot to be desired, their consequences have been exacerbated by implementation that has choked the benefits from such policies and introduced new sources of losses and leakages.

4. The Way Forward

This section tries and suggests way for agricultural markets to function more effectively and most importantly, for income of the farmers to be enhanced. The solutions are essentially in the realm of market integration, be it through better infrastructure, marketing, vertical integration or the futures market. However, the basic change required in the APMC Acts has been mentioned in brief, as a detailed discussion was done earlier.

The APMC Acts

It has become necessary to promote a competitive marketing infrastructure and bring about professionalism in the management of existing market yards and the fee structure. But more importantly, it is imperative to remove the mandatory role of regulated markets as the place where exchanges in agricultural produce can take place.

It is important to give sellers or farmers the choice to sell their produce outside regulated markets so that they can move from a buyer's to a seller's market. At the same time, if regulated markets under APMC are provided as a parallel alternative to sellers, then free markets will be under self-regulation and this will curtail incentives for exploitative cartel formation among buyers and consequent under recovery by sellers. It will also help reduce wastages by promotion of direct movement of goods.

Infrastructure Issues

The previous sections underline the market failures arising out of government policies, which were perhaps justified when they were promulgated but have definitely outlived their utility in a changing market economy. The bargaining position of the farmer is worsened by poor storage and warehousing facilities. With lack of information across *mandis* and a small time period between the harvest and selling periods, once the farmers reach the nearest *mandi* with the produce he becomes a price taker.

Since agricultural products are largely perishable commodities it is essential to provide farmers with opportunities to augment their profits through futures contracts which assure them of larger revenues than what they get from selling during the harvest season. The glut that often follows a harvest creates oversupply and dampens prices. As a result, the farmers only get a fraction of the consumer expenditure on their products, the rest being siphoned off by intermediaries. This leads to small or even negative surpluses, hampers reinvestment and deters the adoption of progressive approaches to agriculture.

The requirement is of 'certified warehouses' and 'warehouse receipts'. A warehouse receipt, when backed by a legal framework, is an instrument showing proof of ownership of agricultural commodities. It states the quality and quantity of produce and the name of the storing warehouse. The warehouse receipt is issued after the produce is certified for quality and quantity on the basis of official standards. Warehouse receipts can play an important part in making Indian agriculture more responsive to market opportunities and competitive in relation to world markets.

These receipts may be used in commodity linked loans. If the farmer fails to repay, the bank can use the warehousing receipt pledged to it as collateral to seize the associated stored produce and sell it for the liquidation of the loan. The bank's risk thus gets reduced. To take the goods from the warehouse, the farmer needs the bank's consent, but he can sell the receipt directly to a local trader. If the trader wants the produce, he can get it by repaying the lending bank.

Certified warehouses and a system of warehouse receipts could thus lead to better credit delivery, better loan recovery and convenience in asset management. It would also make it more attractive for the banking sector to extend post-harvest credit facility to the agriculture sector, and reduce cost of public support for agricultural marketing and transactions. Banks incidentally have a mandate to devote 40 percent of their lending to priority sectors of which 18 percent has to go towards direct lending to agriculture.

It is no secret that small landholdings and heavy monsoon dependence make farming in the country a very risky activity and inhibit farmers' access to credit. Informal credit, the source usually tapped by the farmers, comes at very high interest rates, while banks are reluctant to lend because farmers cannot provide good collateral and hence do not qualify for their loans. There is immense potential for increasing farm credit through this approach to financing and this can also be a sure way for achieving the priority sector lending targets of banks.

In the last few years, leading national commodity exchanges have tied up with banks to lend to farmers on the basis of produce stored in their accredited warehouses. National Bulk Handling Corporation, an associate of the Multi Commodity Exchange, and National Collateral Management Services Ltd, an associate of National Commodity & Derivatives Exchange, have entered into a deal with about 20 banks, from both the private and the public sector, to provide warehouse credit to farmers.

The aim is to help farmers get a better price for their produce and banks to meet their government targets for lending to farmers. The commodity exchanges also benefit as the quantum of futures trading grows. Backed by warehousing receipts, about Rs 2,000 crore was disbursed through different banks in 2006-07 and more than 100,000 farmers benefited. In almost two years, there have been negligible instances of default on repayment of bank loans by farmers.

Warehousing receipts financing is also likely to lead to a reduction of government involvement in procurement of farm commodities. Since these

receipts guarantee the existence of stocks, the government can hope to achieve food security objectives by simply holding these receipts.

Further, the government needs to promote the latest information system for warehouse receipts in order to help identify ownership of produce, transfer of lien, hypothecation of receipt for loan and trading of the produce in the context of spot delivery. Exemption of various taxes and levies associated with warehouse receipts would also help.

With the globalisation of the Indian economy and the impact of World Trade Organisation (WTO) agreements on Indian agriculture, the importance of post harvest management cannot be overemphasised. An integrated supply chain, from farm to market, would require infrastructure for all types of perishable horticultural produce, including cleaning, grading and packaging and cold storages/chains.

At present these facilities are negligible at the farm level. Only limited grading and sorting facilities exist in regulated markets for removing unwanted biodegradable biomass and proper packaging. Out of the existing 7,127 regulated markets, grading facilities exist only in 1,321 markets. The government effort in the past has primarily focused on increasing production without adequate attention being paid to development of post-harvest management infrastructure. This infrastructure is essential for hot tropical countries such as India.

There is a need to create facilities for cleaning, grading and packaging not only at the primary but also at the village level. This would not only remove the unwanted biodegradable biomass, which in turn, can be used as cattle feed, but could also reduce the volumes of market arrivals by as much as 25 percent. This would also help in reducing congestion in the markets. Further on, it is roughly estimated that about 50 percent of the produce on a plot is waste and can be used as a source of energy.

The development of adequate cold storage capacity/cool chain would also help not only in increasing the shelf life and minimising post-harvest losses through proper preservation but also the farmer in taking timely marketing decisions. In view of the future requirements of fresh/pre-cooked/frozen food items and the anticipated change in food habits in favour of processed foods, the capacity requirement for post harvest management of perishables needs to be augmented by another 45 million tonnes over the next 10 years. The private sector should be tapped for this purpose by giving appropriate incentives. Further, commodity specific post-harvest practices should be developed, both for short and long distance marketing.

In all, it is important to define the role of regulation in facilitating the provision of warehousing and cold storage capacity for the use of farmers. In this regard, the Warehousing (Development and Regulation) Bill, 2005 that was passed in Parliament recently, is expected to provide the framework. It would help create a legal body for regulation of warehouses, develop warehousing and popularise negotiable warehouse receipts, in line with the argument presented earlier.

Marketing Issues

Indian agriculture suffers from many problems. Marketing is one of the important ones. The smallest of the farmers with surpluses need to be given a price guarantee against the stupendous risks taken. Yet, efforts to galvanise and speed up marketing of rural produce have been few and haphazard. 'Direct marketing' by farmers can lead to a shrinking of the number of intermediaries and therefore better price realisation of what the consumers finally pay.

The amendment of the APMC Act in 14 states, which has allowed farmers to sell their produce in open markets, can be seen as the first step to effectively promote direct marketing and contract farming. This has also opened the gates for companies to enter this segment. However, greater liberalisation of laws and rules for crop contracts needs to be facilitated.

In the highly regulated and monopolistic wholesale markets farmers are unable to bargain effectively. Intermediary and system inefficiencies consume a disproportionate share of the consumer price. There is no incentive for the farmer to improve quality and productivity. The only option left to modernise the marketing system is to set up an alternative marketing system that may operate parallel to the existing system. Either these markets need to be outside the purview of the APMC Acts or these Acts need to be modified to accommodate them, ideally the latter. Only this would ensure transparency, quality control, efficiency and fair play.

'Direct marketing' by farmers enables them to meet specific requirements of wholesalers from their inventory of graded produce, as also of retail consumers, thereby improving their price realisation considerably. This also ensures grading of farm produce at the farm gate, instead of the present practice of grading in the cities and thus adding to municipal waste. It also obviates the need for hauling the produce to regulated markets, saving both time and money on transportation. Direct marketing presupposes prior knowledge of the buyers' needs among the farmers. It also enables transactions through purchase orders for long-term deliveries and payments. This commercialisation of agriculture based on modern business principles is a very healthy sign.

Direct marketing (retailing) by farmers was experimented through *Apni Mandis* in Punjab and Haryana. A modified concept was introduced in Andhra Pradesh through *Rythu Bazars* and in Tamil Nadu through *Uzhavar Santhaigal*. Application of direct farming has also been observed in pockets, such as Kovalam in Kerala and Jaipur in Rajasthan, where farmers double up as sellers to final consumers or retailers. These markets, having a catchment area of 60-80 kilometres, have become popular for retailing fruits and vegetables in major towns. These markets are being run by the state governments for the benefit of the small and marginal farmers as a promotional measure to introduce the principle of marketing without middlemen. More such markets need to come up in the organised sector with private investment so that appropriate backward and forward linkages could also be developed.

In another initiative – *e-choupal* by ITC – farmers were being provided information about competing potential opportunities for selling their products, thus breaking the monopsonistic barriers to price discovery. But these developments are few and far in between, accounting for a very small percentage of the agricultural produce consumed.

Issues in Supply Chain Integration

Backward and forward linkages in the supply chain involving various agribusiness houses and the rural farmers can increase the marketing efficiency of agribusiness firms by compressing or shortening the supply chain. This also results in a higher price to the farmer, and/or a lower price to the final consumer.

Such backward integration can be used to tackle uncertainty with regard to production (quantity) and quality faced by firms dealing with agricultural products. Moreover, transaction costs in searching for high quality raw materials (agricultural produce) and sorting and grading to assess the true quality of the farm produce can be reduced.

Contract farming, which is currently the most dominant form of backward integration, is an important method by which uncertainties in agriculture production can be reduced to a certain extent and efficiency of the agriculture supply chain increased. It is defined as a system which facilitates supply of agricultural/horticultural produce through forward contracts between producers/suppliers and buyers. The essence of such an arrangement is the commitment of a producer/seller to provide an agricultural commodity of a certain type, at a specified time for a specified price, and in the quantity required by a known and committed buyer. Contract farming usually involves the following basic elements – pre-agreed price, quality, quantity or acreage (minimum/maximum) and time.

According to the contract, the farmer is required to plant the contractor's crop on his land, and harvest and deliver a quantum of produce to the contractor, based upon anticipated yield and contracted acreage. This could be at a pre-agreed price. Towards these ends, the contractor supplies the farmer with selected inputs, including the required technical advice, while the farmer supplies land and labour. The terms and nature of the contract differ according to variations in the nature of crops to be grown, agencies, farmers and technologies.

These contracts could be of three types: procurement contracts under which only sale and purchase conditions are specified; partial contracts wherein only some of the inputs are supplied by the contracting firm and produce is bought at pre-agreed prices; and total contracts under which the contracting firm supplies and manages all the inputs and the farmer becomes just a supplier of land and labour. The relevance and importance of each type varies across products and over time, and these are not mutually exclusive.

A contract reduces price risk for a farmer and can be terminated at reasonably short notice. Also, contractual arrangements are attractive to farmers seeking capital and new technology and other inputs and production services. Generally new crops and seeds and other inputs are promoted under such arrangements.

For the corporate, the benefit arises from leveraging low cost farm products and increasing productivity. Food processors can minimise their overhead costs per unit of production by operating their plants at or near fully capacity while using supplies of assured, stable and quality raw material obtained from farms under contract. For a processor, contracts offer more flexibility in the face of market uncertainty, make smaller demands on scarce capital resources and impose less of an additional burden on management. They also overcome the land constraint for corporate firms, reduce production risk, and are politically more acceptable than corporate farming¹⁶.

At a more macro economic level, contracting can help to remove market imperfections in produce, capital, land and labour markets, and remove intermediaries and therefore make upstream value chains (agricultural marketing) more efficient. It can also help in better co-ordination of local production activities as it often involves initial investment in processing, extension etc¹⁷. From an institutional economics perspective, contract farming could be looked upon as a way of creating positive externalities, facilitated better by the private sector instead of the state and enabling overall rural development.

Contracting can also lead to more employment opportunities for farm and non-farm labour as it generally deals with labour intensive high value crops requiring labour for harvesting, grading, and packaging at the farm level, and processing, transportation, packaging and marketing at the post-farm stage. It also reduces the seasonality of employment and results in higher wages by generating competition in the labour market. There can also be positive developmental effects from consequent improvement in infrastructure and other amenities and general expansion of demand due to higher incomes¹⁸.

The aim of both direct marketing and contract farming is to reduce the impact of near monopsonistic intermediation and provide a direct and more efficient linkage between the farm and the market. However, these experiments are confined to only a few districts.

Nevertheless, it must be understood that contract farming is a vertical integration response to a situation of market failure. It is yet to get a proper legal backup and the lack of a fixed purchase price in many contract farming deals keep poorer farmers away. Perhaps instead of a new law, merely fixing the price element and having an arbitration body could work wonders. In the case of ITC's *e-choupal*, for instance, having a *sanchalak* or a conductor to help farmers in price discovery contributes to the popularity of the system.

Futures Market

Direct marketing can be effective only if farmers have an opportunity to access reliable reference prices for a range of grades, qualities and delivery times. Forward and futures contracts enable this price discovery and stability. These also provide an opportunity for the farmer to hedge his risk by deciding in advance what to produce/sell/store etc.

Forward contract is an agreement between two parties to buy and sell a commodity at a pre-determined price and at future date. Future markets, by dovetailing their functioning with spot markets, can help in stabilising prices in times of both good and poor harvests.

Commodity futures markets are regulated through Forward Contracts (Regulation) Act, 1952. The Kabra Committee recommended in 1994 that all commodities in which futures trading were banned in 1966 be reintroduced as well as many others added. However, at present, futures contracts are traded for only nine commodities – pepper, castor seed, castor oil, potato, *gur*, turmeric, hessian, sacking, cotton and coffee.

Futures markets have great potential for performing the function of price discovery and risk management. However, they are still in their

infancy and not congenial for hedgers and other economic agents. Poor infrastructure, logistics, linkages with financial institutions and spot markets etc. plague them. Further, lack of reliability and integrity of the players and an inefficient information system have inhibited their growth. These markets need to be strengthened in order to instil confidence and awareness among the market players.

The Forward Contracts (Regulation) Amendment Bill, 2006, had been introduced in 2006 to enhance the status of the Forward Market Commission from a mere government department to a properly empowered regulator.

In this regard, however, it must be mentioned that the ban on forward trading in a few agricultural commodities since the beginning of 2007 has caused much heartburn. Barely one percent of Indian farmers use the forward markets, compared with one-third of farmers in the US.

Some improvements in infrastructure have also followed: three multi-commodity national exchanges have been established on an e-platform and 21 products specific regional exchanges have been set up. Nevertheless, the key weakness of the existing framework of commodity markets in India – the lack of price transparency – remains. It is difficult for each farmer to know the correct price that is prevailing in surrounding spot and futures markets. This problem is deeply related to the lack of modern institutions on the spot and futures markets. If the spot market operated using electronic trading, then there would be full price transparency in real time. However, at present, the spot market and the futures markets are both characterised by weak institutions, bilateral transactions and an absence of transparency. The spread of modern telecom, however, has had a substantial impact upon sheer price access.

5. Conclusion

Agricultural markets in India are regulated, fragmented and rudimentary. This has been the result of several factors; primary among them are the outdated government policies, lack of infrastructure and investment and a long chain of intermediaries that distort the supply chain.

It has been seen that government policies like MSPs, procurement at a pre-determined price and banning of futures market, have outlived their utility, and over time led to underdeveloped markets in agricultural produce. These restrictive policies were accompanied by many other aspects of intervention, which included barriers upon movement of agricultural goods, an extensive system of state intervention for agricultural inputs, etc. In other words, free and fair play of competitive

market forces has been hindered not only because of geographical constraints but also poor infrastructure and regulation. These add up to a situation in which the agricultural sector is probably the most repressed sector of the Indian economy. There is considerable consensus amongst economists that this policy framework has many weaknesses. It imposes considerable direct costs upon the government and generates sub-optimal resource allocation.

Under the APMC Acts, state governments alone are empowered to initiate the process of setting up of markets for agricultural produce within a defined area. As a result, private and cooperative sectors cannot take initiative in setting up markets equipped with modern facilities. The provisions of the APMC Act have to be modified to create a lawful role for the private sector and allow the setting up of alternative marketing systems involving the private/corporate sector. The government's role should be that of a facilitator of all infrastructure facilities rather than a manager of markets. The Government of Karnataka has taken the initiative in this direction and provided for the establishment of an "Integrated Produce Market" to be owned and managed by National Dairy Development Board (NDDB) for marketing of fruits, vegetables and flowers in the state. Other states now need to follow.

Increasing the income of the farmers is the key. The farmer needs to get a higher proportion of the price paid by consumers. This will require decreasing the number of intermediaries in the supply chain and expanding post-harvest infrastructure, organised marketing processes and value addition services, all of which will increase the price realised. These, in turn, will spur investment in agriculture, leading to increase in farm productivity. But perhaps the biggest requirement is to remove the mandatory nature of regulated markets in India for exchange of agricultural produce.

Endnotes

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- 3 The Ministry of Agriculture categorises commodities as either 'principal commodities' or 'non-principal commodities' depending upon the fraction of total cropped area in the country devoted to cultivation of the commodity. Rice is the largest principal commodity as it has the largest fraction of total area under cultivation, at 50 percent
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- 11 These numbers correspond to March 2001. With a view to coping up with the need to handle increasing agricultural production, the number of regulated markets went up from 286 at the end of 1950 to this present number of 7161. Most of these regulated markets are wholesale markets
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Regulation of the Power Sector in India: Issues and Challenges

Introduction

Power is often considered a core infrastructure component as well as a driver of rapid economic growth. The current availability of power in any country provides an idea about its economic prospects in the near future (say next five-six years) in terms of growth, employment, industrialisation, urbanisation etc. Therefore, most developing countries are taking steps to add to their electricity generation capacity not only to fulfil present requirements but also sustain future economic growth.

In the early 1990s, India along with most of the other developing countries opened its power sector to private investment recognising that the public sector alone was not able to generate the required resources. At the same time, it was realised that no private investment, domestic or foreign, would come forward unless an appropriate regulatory environment was ensured to minimise unwanted political interference in this sector. Accordingly, independent regulatory agencies have been constituted at the Central as well state levels.

The main objective of independent regulation was to ensure an accountable, transparent and speedy regulatory environment to promote competition and protect the interest of electricity users. It was expected that competition would further result in economic efficiency and improved service delivery to consumers.

However, outcomes across the states are not very impressive so far. Unwanted and undue political interference has adversely affected the quality of regulation and resulted in poor regulatory outcomes.

This paper highlights the key developments in electricity reforms. It makes an assessment of the regulatory challenges that threaten the quality of regulation as well as competition in the power sector. On the basis of certain observations and findings, it concludes that the mere creation of 'autonomous regulatory bodies' is not sufficient to achieve

good outcomes; autonomy has to be protected and supported in a sincere manner.

The paper is divided into five sections. Section 1 describes the major changes that took place in the pre-reform period. It analyses how various economic and political factors contributed in changing the industry as well as the regulatory structure of the electricity supply industry. Section 2 highlights the various structural changes in the industry and the regulatory environment. It also discusses the impact of political economy on the statutes, policy and regulations issued by respective governments and regulators. Section 3 examines the effectiveness of the tariff regulation process. It evaluates this process from the perspective of financial viability of the sector. Section 4 deals with competition assessment (CA) and examines the scope for generation of competition in the generation, transmission and distribution (T&D) of electricity. Section 5 concludes.

1. Evolution of the Power Industry

Immediately after independence, like many other heavy industries and natural monopoly utilities, the power industry was kept under government ownership and control. The industry was designed as an integrated system combining generation and T&D functions at the state level. SEBs were constituted under the Electricity Supply Act, 1948 to operate the electricity supply industry at the state levels. The governments made required investments from time to time and provided budgetary support. The SEBs were government monopolies – the government was considered the best caretaker of consumer interest.

To add new generation capacity and electrify villages, a huge amount of public money was invested in the sector including the generation and T&D segments. During the different Five-Year plans, a significant share of the expenditure was spared for power sector development.

As is shown in Table 4.1, about one fifth of the total plan expenditure was invested in the power section in generation and T&D. With increase in plan expenditure over time, the installed generating capacity as well as T&D network capacity increased significantly. The generation capacity increased from 2300 MW in 1950 to 81,000 MW in 1995 and 1,47,000 MW in end 2008 (Ministry of Power). The average annual growth rate was estimated at eight percent for the period 1950-1995. Similarly, an impressive growth rate was reported in the expansion of T&D networks. Per capita use of electricity increased from 16 Kwh in 1950 to 337 Kwh in 1995-96 and 700 Kwh in 2007-08.

Table 4.1: Share of Expenditure on Power Sector in Total Plan Expenditure

(Rs crore)

Plan Period	Expenditure Power Sector	Share in Total on Plan Expenditure (in percent)	Growth in Expenditure on Power Sector over the Previous Plan (in percent)
4 th (1967-74)	2932	19	NA
5 th (1974-79)	7400	19	152
6 th (1980-85)	18299	17	147
7 th (1985-90)	37895	17	107
8 th (1992-97)	76677	16	102
9 th (1997-02)	115870	14	51
10 th (2002-07)*	270276	17	133

Source: Plan documents for the respective periods

*Represents planned outlay, as actual expenditure was only Rs 179354 crore

In spite of this impressive growth in generating capacity addition and sale, the sector showed poor technical and financial performance. Due to excessive and undue political interference SEBs were operated in an unprofessional and inefficient manner. Given the relevance of the power sector to all sections of society, whether household, agricultural, commercial or agricultural, the politicians used it strategically to create a vote bank for themselves. For example, the tariff for certain consumer categories was kept too low to recover the cost of supply. Apart from populist tariffs, poor efforts to control power theft and ineffective administrative culture were the main factors responsible for poor performance.

On the other hand, in order to speed up the politically motivated rural electrification programmes, huge investment was made to extend the distribution network. More and more low tension (LT) lines were used; even the optimal high tension (HT)/LT line ratio was not maintained. This tendency resulted in two major problems. One, as a result of poor HT/LT ratio, reported T&D losses were very high. Further, as already stated above, low tariffs for some consumer categories, especially household and agriculture, were inadequate to recover the full cost of supply.

Consequently, commercial losses of SEBs increased over the years. Although some state governments have been providing subventions on account of subsidised power to the farm sector, however, given the high cost of supply, the financial support has been inadequate. Commercial losses have increased over time. For example, commercial losses inclusive of subsidies for all SEBs/utilities have increased from Rs 4117 crore in 1991 to Rs 28445 in 2001¹. Even after the reform process, the losses could not be reduced. During FY 2006-07, Rs 27446 crore of aggregate losses were reported. This has affected the financial viability of this utility sector.

Apart from excess political interference, inefficient management and operation has been the other important factor responsible for the poor performance of the power sector. Lack of competition in this sector has further compounded the problem. The plant availability factor (PAF) and plant load factor (PLF) reported were very low for most SEBs. During 1990-91 to 2000-01, the all India average PLF remained below 70 percent, which shows extreme under-utilisation of scarce economic resources. For some SEBs the PLF was even lower than 60 percent. The T&D losses remained at unacceptably high levels of 50 percent or above for most SEBs. The trend of PLF and T&D losses in the pre-reform period is shown in Table 4.2:

Table 4.2: All India Plant Load Factor and T&D Loss Levels

Year	Plant Load Factor (in percent)	T&D loss level (in percent)
1992-93	62.7	22
1993-94	69.8	21
1994-95	69.2	21
1995-96	71.0	22
1996-97	70.1	25
1997-98	70.4	25
2001-02	70.0	34
2004-05	75.0	31
2005-06	73.6	30
2006-07	76.8	29
2007-08	78.6	27

Source: i) Annual Report (various issues) on Working of SEB and ED, Planning Commission, ii) Ministry of Power website and iii) Central Electricity Authority

Table 4.2 shows that PLF as well as T&D losses remained at unacceptable levels over the entire time period. The utilities were able to bill only about half of the energy purchased from various sources. It may be noted, however, that the figures in the table have been reported by the respective utilities and that the actual losses were much higher, as observed by many Electricity Regulatory Commissions (ERCs). Moreover, low recovery of dues was also reported as a serious problem. Poor revenue realisation not only affected the financial health of the utility but also the quality of service. Consumers suffered from unreliable and poor quality of service. However, political interference continued over time and no adequate attention was provided to sustain the financial health of the sector. Instead, around election time, political gimmickry resulted in various political parties promising free or cheaper power.

Some states, such as Andhra Pradesh, Tamil Nadu, Punjab and Karnataka have provided power at a very low tariffs even zero, in the last few years. Moreover, such subsidy was untargeted and available to all farmers regardless of their capacity to pay and the cropping pattern. As a result, the gap between revenue from and cost of supply increased. Soon it became unsustainable for the states to continuously bridge the revenue gap through the public exchequer. Ultimately, restructuring of the sector was suggested as a solution to overcome the ongoing problems in the sector. Some states also started the reforms process under the supervision of multilateral funding agencies, such as the World Bank, Asian Development Bank (ADB) etc.

2. Reforms and Regulation

During the last one and half decades, the power sector has undergone thorough and radical structural changes. The whole institutional set up of the power sector has undergone reform in order to facilitate competition in the sector. Orissa was the first Indian state to initiate power sector reforms under the supervision of the World Bank.

Broadly, electricity reforms included the establishment of independent regulatory bodies and the unbundling of SEBs. Later, the Government of India enforced the Electricity Act, 2003 for further reforms in the sector.

Independent regulatory bodies were constituted to insulate unwanted political interference in the sector and promote competition. For purposes of regulation, the Central Electricity Regulatory Commission (CERC) has been constituted at the national level, while State Electricity Regulatory Commissions (SERCs) have been established at the state level by respective state governments. All the states have by now

constituted SERCs. The major regulatory functions of these bodies include licensing, setting tariffs, ensuring maintenance of service standards and promoting competition in the sector.

The primary purpose of unbundling was to create a fair and competitive environment. Earlier, as mentioned before, SEBs were structured in an integrated system and enjoyed monopoly power. After unbundling, separate entities have been constituted to discharge the generation and T&D functions at the state level. Further, the Ministry of Power has been supporting distribution reforms under the Accelerated Power Development and Reforms Programme (APDRP) involving various incentives to distribution companies to reduce their aggregate technical and commercial losses (AT&C).

By separating the carrier from content; competitive and non-competitive segments have been treated accordingly. Consequently, the setting up of multiple generation as well as distribution companies at the state level have been facilitated to take advantage of the scope for competition in these segments. Since transmission is still characterised as a natural monopoly, it is hence treated as a non-competitive segment and kept under detailed regulation. As per provisions of the Electricity Act, 2003 the transmission function should be discharged by a third party neither engaged in generation business nor in distribution. The purpose is to ensure open access in order to facilitate competition in the sector. This is reflected in the Preamble itself:

'...development of electricity industry, promoting competition therein, protecting interest of consumers and supply of electricity to all areas, rationalisation of electricity tariff, ensuring transparent policies regarding subsidies, promotion of efficient and environmentally benign policies...'

Political Economy of Reforms

Given the essential nature of electricity supply and its use by all sections of a society, it provides a wide scope for political intervention in the related decision making process. Various sections, such as households, industry, agricultural sector, commercial sector etc. form political pressure groups that have an effect on decisions regarding price and investment. Thus, the decisions on electricity tariff as well as investment have been highly influenced by political interests in the past. For example, the tariffs for agriculture and household sectors were kept low even though the costs of supply to these categories were high. The farm sector was highly cross-subsidised by industry as well as commercial consumer categories. As a result, the share of electricity consumption of the farm sector in total electricity consumption increased significantly. The details are shown in Table 4.3.

Table 4.3: Share of Various Categories in Total Power Consumption

(units in mn)

Year	Industry	Agriculture	Domestic	Commercial	Others*	Total
1970-71	29579 (68)	4470 (10)	3840 (9.0)	2573 (6.0)	3262 (7.0)	43724 (100)
1985-86	66980 (54)	23422 (19)	17258 (14)	7290 (6.0)	8149 (7.0)	123099 (100)
1991-92	87288 (42)	58557 (28)	35854 17	12032 (6.0)	13914 (7.0)	207645 (100)
2001-02	107296 (33)	81673 (25)	79694 (25)	24139 (7)	29657 (9.0)	322459 (100)
2004-05	137589 (26)	88555 (23)	95660 (25)	31381 (8.0)	32949 (9.0)	386134 (100)
2006-07	241216 (46)	99023 (19)	111002 (21)	40220 (8.0)	34210 (7.0)	525671 (100)

* Include railways, public lighting etc.

Source: Ministry of Statistics and Programme Implementation, Government of India. The figures in brackets show the relative share in total consumption in percentages

During 1970-71, the agriculture sector consumed only 4470 million units (MU) of power. This accounted for a 10 percent share in the total electricity consumption during that year. During 1970-71 to 2000-01, the share of agriculture consumption increased significantly. The same trend (increasing) may also be observed for the domestic sector. The relative share of agriculture was reported as 25 percent in 2001-02. It has been revealed by several studies that most of the subsidised power is utilised by big farmers. Generally, small farmers are financially unable to purchase the required equipment. Further, excess use of ground water has also raised serious environmental concerns. As a result of continuous use of groundwater, the water table in some states, such as Punjab, Maharashtra and Andhra Pradesh has gone down drastically. The respective governments, however, have paid very little attention to the problem and continued with the process of subsidisation².

At the same time, the relative share of industrial consumption has decreased significantly. The relative share of the industrial sector has decreased from 68 percent in 1970-71 to 26 percent in 2004-05. Due to political interference, the tariff payable by industry has been much higher than that levied on domestic as well as agricultural users. As a result, most industries have installed captive power plants and are shifting to alternative energy sources.

Other important political economy issues are access and affordability. Enormous disparities exist between rural and urban consumers in access to electricity. The status of rural household electrification is very poor. As of now, only 30 percent rural households have been electrified. Although the all India rural electrification rate is about 82 percent, the actual status is very poor in some states. For example, in Jharkhand, only 31 percent of villages have been electrified till date. The rate is about 50 percent for a few other states, such as Arunachal Pradesh, Bihar, Orissa, Tripura etc.

Given that about 25 percent of the Indian population is still below the poverty line (BPL), affordability becomes a very important political economy issue in the power sector. For the BPL households, the electricity bill constitutes a significant component of their total expenditure on goods and services. The majority of households are unable to afford services if the tariff is too high. '*Minimum lifeline consumption of 1 unit/household/day as a merit good by year 2012*'³ is envisaged in the National Electricity Policy.

Some state governments have taken initiatives to speed up household electrification, but without significant results. Under the *Rajiv Gandhi Grameen Vidyutikaran Yojana* (RGGVY), electricity connections are being provided free of cost to BPL as well as scheduled caste/scheduled tribe (SC/ST) households. However, households are not coming forward to acquire new connections. This is because, apart from the variable cost such as tariff payable on monthly basis, a huge amount of money is required to install the necessary fixed equipment. The inability to purchase expensive equipment is a major barrier to the rural electrification process. A field survey conducted by CUTS also observed the same problem in Rajasthan and West Bengal⁴.

Given the mentioned problems, the subsidised power supply is being utilised mostly by rich people. A few vested interests have been exerting pressure on regulators/governments to keep tariffs low. This has also adversely affected the financial viability of electricity boards and consequently, the quality and coverage of service.

Political economy has also played an important role in the allocation of power between policy makers and independent regulatory agencies in the sector. As per provisions of the Electricity Act 2003, the Central and state governments can issue policy guidelines to the respective ERCs. It has also been clarified that the decision of the state government would be final if there is a difference of opinion between the government and the regulatory body on some policy issue⁵. Another important issue is the electricity subsidy given to some consumer categories. Although, the Act authorises state governments to provide a subsidy, it also requires

the government to pay the amount of subsidy in advance so that financial viability of the utilities is not affected.

Appropriate Regulatory Design

Regulatory design is a crucial input into regulatory quality. The role played by various economic agents such as government, consumers, regulated entities etc. needs to be properly demarcated and specified. In the Indian context, design is even more important given the existence of public-owned utilities, monopolistic structures in some areas, politically motivated tariff structures etc. It, therefore, becomes important to analyse how the interest of users can be protected through promotion of competition and economic efficiency in the power sector. This is the key issue in the regulation of power sector. Various elements, such as autonomy, accountability, transparency etc. need to be ensured to create a good regulatory environment. However, past experience shows that regulatory environment in the sector needs to be strengthened by ensuring more autonomy, accountability, transparency and stakeholder participation in the system.

Selection Process: A free and fair selection process is crucial for good regulatory design and outcomes. The same has also been reflected in the Electricity Act 2003. The Act requires constitution of an independent committee for the selection of regulators. The time frame and process to be adopted have also been mentioned. The Act also specifies that removal of a member is not possible unless he/she is proved to be guilty of proven misconduct. However, there are a number of cases in which these provisions have not been followed in spirit.

For example, in Rajasthan, the post of Chairman, Rajasthan Electricity Regulatory Commission (RERC) has remained vacant for almost two years. Similar cases were reported in other states, and also in CERC when the post of Chairman remained vacant for a quite long time. In Tamil Nadu, the state government rejected the panel suggested by the selection committee for the post of chairman of Tamil Nadu Electricity Regulatory Commission (TNERC)⁶.

Similar examples may be cited from other states where governments did not play the required role in a sincere manner. Further, most of the posts of Chairman as well as members have been filled up by appointing retired bureaucrats for most of the ERCs. This tendency is a major barrier in attracting young professionals with relevant expertise, especially from the private sector.

Financial Autonomy: Economic regulation tries to maintain a balance amongst conflicting interests. To attain this objective, the regulator needs

functional and financial autonomy to make the decision making process impartial. Financial autonomy is also a determinant of the capacity of the regulatory body. On the other hand, inability of regulators to generate adequate financial resources will adversely affect the functioning of the regulatory body.

In India, most ERCs depend upon the respective state exchequer although the Electricity Act, 2003 empowers them to generate revenue by collecting licence and regulation fee etc. Only a few SERCs, such as Gujarat, Maharashtra etc. have used this power and generated surplus revenues. The annual budgets (2007-08) for most of the ERCs are in the range of Rs 3-4 crore. Regulatory bodies are also facing a staff crunch because of two reasons: one, the ceiling on salary imposed by governments that prevent the appointment of persons with good capacity by ERCs; and two, inadequate training programmes to enhance the capacity of the staff of regulatory bodies. The regulatory bodies may not have access to funds required for the purpose of training the staff.

Functions of the ERCs: As per the provisions of the Act, all major functions such as tariff determination, licensing, quality of service, regulation, facilitation of competition etc. have been assigned to regulatory bodies. At the national level, the role of CERC is to regulate inter-state energy transactions as well as transmission charges while the role of the state regulators is to regulate generation, T&D at the state level.

In principle, the role of the government (Central as well states) is to issue appropriate policy guidelines in consultation with the respective regulator. However, there are many examples in which power has been misused by various governments to affect the autonomous status of regulatory bodies. Many conflicts between government and regulators on jurisdiction issues have been reported. For example, the Act has empowered ERCs to fix tariffs for end users. But effectively, the government has not allowed the regulator to determine the tariff at its discretion.

Functional Autonomy: In order to discharge functions in a free and transparent manner regulatory bodies need functional autonomy from the government. Though the Electricity Act, 2003 empowers regulators to fix the end-user tariff, at the same time it also allows the state governments to provide subsidy to deserving consumers. This provision creates difficulty in the tariff fixation process. Further, Electricity Tariff Policy requires limiting cross-subsidy to 20 percent. To summarise, given the political economy issues in the power sector, regulatory bodies on their own are not able to eliminate cross subsidy unless they receive due support from the government.

The Act requires the respective governments to pay the subsidy amount in advance to the utility. This requirement has often not been met and adversely affects the financial health of the utility and quality of service available to consumers. Some states, such as Andhra Pradesh, Tamil Nadu and Punjab have forced the respective distribution companies to supply free power to farmers. There are number of other examples where regulatory independence has not been protected by state governments. In 2002, the Government of Himachal Pradesh ordered the roll back of the tariff hike, as proposed by the SERC. Though this step was criticised by the media and other groups, it clearly demonstrates the unwillingness of the political interests to respect the functional autonomy of regulatory bodies⁷.

Evidence relating to other important aspects reveals poor policy support from the state governments. For example, Electricity Act 2003 requires the state governments to constitute fast track courts as well as special police stations to speed up theft related tracking processes. However, it has been reported that, in most of the states, respective state governments have not taken adequate steps in this regard.

Stakeholder Involvement and Feedback Support: Decisions regarding tariff fixation present a dilemma. Very low tariffs may affect the financial viability of utilities while higher prices may result in lower demand as well as loss of consumer welfare. Therefore, policy guidelines require regulatory bodies to fix the tariff according to a transparent and participatory decision-making process. As a practice, ERCs have invited consumers to participate in the decision making process by publishing public notices in newspapers, websites etc. However, due to lack of awareness and inadequate capacity of consumers, public participation has been weak and ineffective in most of the cases.

Though some ERCs such as Andhra Pradesh, Karnataka etc. have appointed consumer representatives, no proactive support was provided by most of the regulatory bodies to ensure adequate public participation. Moreover, regulatory bodies have also not made any special effort in disseminating important regulatory information among citizens. Most of the regulatory information is available only in English; hence, creates hurdles in the wider dissemination of information⁸.

Public Ownership and Competitive Neutrality

Though one of the main purposes of unbundling was to privatise the electricity supply industry and promote competition in the sector, the industry is still dominated by the public sector. In the generation business, the share of the private sector has increased significantly during the reform phase. Currently, private sector accounts for 14 percent of the total installed grid capacity in the country. In the transmission

segment, a few operators such as Reliance have got licences from CERC to start up businesses. As a result of opposition from public sector companies, no private participants could come into the transmission sector for many years. On the distribution side, only two states, Orissa and Delhi have privatised the distribution and retail supply business. In all, except these states and a few other cities, such as Kolkata, Mumbai and Surat, the distribution business is under government ownership and management.

A number of studies in the literature conclude that ownership is an important factor affecting the performance of electricity utilities. Empirical evidence shows that a change in ownership can result in utilities improving in terms of labour productivity, output, quality of service and economic efficiency. Luis Andres et al observed a similar trend through a study which assessed the performance of 116 utilities in 10 Latin American countries⁹.

On the other hand, Indian states have been hesitant in changing ownership because of two reasons. The first is the systematic and continuous opposition by utility employees. In many cases, employees were reported opposing privatisation because of the fear of job losses and exploitation by private firms. Another reason is the unwillingness of governments to transfer power to the private sector as it would then be not available for vote bank politics.

Whatever the reason may be for not privatising, public ownership of electricity utilities has affected the quality of regulation. It is difficult to achieve good outcomes from public owned utilities. The government's control over the management and operation makes the compliance of regulatory decisions difficult. On the other hand, regulatory bodies have also not enforced effective monitoring and compliance. Electricity distribution companies too have not implemented a number of regulatory directions.

The regulators do not find it appropriate to impose penalties on public owned utilities for non-compliance because it ultimately burdens the consumers/tax payers. The tenures of officers in utilities are also not fixed. Appointments to senior posts, such as chief managing director/ chairman etc. are made on an *ad hoc* basis. Obviously, reasonable timeliness in procedures and fixed tenures of executives are important pre-conditions for effective performance of utilities.

Therefore, it is clear from this analysis that political economy issues have played a very important role in the regulation of the electricity sector. Apart from the selection process of regulators, decisions on tariffs and investments have also been highly influenced by these factors. Consequently, by and large, political interests have been able to regulate the regulators.

3. Issues in Tariff Regulation

The new tariff making process is more transparent and accountable. It provides an opportunity to various stakeholders to submit their views on the proposal under consideration. The scope for public participation has increased. However, in most of the cases, public participation in tariff making process has not been effective.

Another important issue is the time consumed in processing the tariff order. Ideally, the whole process should be completed within three-four months. However, most of the commissions have taken seven-eight months in processing the tariff order. Non-availability of reliable and adequate information was the main reason for this delay. Further, quite a few utilities have also failed to submit the proposals by the stipulated time. As a result, the regulatory processes have often been delayed for months, making the process ineffective. For example, the order for the FY 2008-09 should have been approved before March 31, 2008 to enable utilities to execute regulatory directions including tariff hike if any from the beginning of the next year. But very few ERCs such as Andhra Pradesh were able to issue the order within the required time, as is mentioned in Table 4.4.

Table 4.4: Delays in Tariff Orders for Distribution Companies for 2008-09

ERC	Date on which order was issued	Remarks
Andhra Pradesh	March 20, 2008	The order was issued within the stipulated time
Gujarat	January 17, 2008	Delayed by about a year
Haryana	November 20, 2008	Delayed by eight months
Karnataka	March 01, 2008	Delayed by a year; a multi year tariff was issued from 2007-08 to 2008-09
Rajasthan	Yet to issue	The Commission has not issued tariff orders for any of the distribution companies. The utilities are charging consumers on the basis of outdated tariff schedules
Punjab	July 03, 2008	Delayed by four months, it created difficulty for the utility in making revenue adjustments and implementing the revised tariff

Source: Information collected from the websites of ERCs

Impact on Financial Viability of the Sector

Improving the financial health of the sector is one of the important tasks assigned to regulatory bodies. However, most of the distribution companies are still making huge commercial losses. High AT&C losses and very low user tariff for some consumer categories are the main reasons for this poor performance (Table 4.5).

**Table 4.5: Average Cost, Revenue and AT&T Losses
(All India)**

Year	Cost/ Kwh	Revenue/ Kwh	Recovery Ratio (Revenue/cost in percentage)	AT&C loss (in percentage terms)
2002-03	2.38	1.95	82	34.78
2003-04	2.39	2.03	85	34.33
2004-05	2.54	2.09	82	34.54
2005-06	2.58	2.21	86	32.07
2006-07	2.76	2.27	82	NA

Source: Report of Power Finance Corporation (2008)

AT&C loss (in percentage terms) is equal to the percentage of energy input for which revenue proceeds have not been realised. This might be due to unbilled use or inability to collect revenues corresponding to billed amounts.

The utilities have not been able to recover the full cost of supply. This shows that there is a huge scope for efficiency improvement. For example, only a few distribution companies such as Andhra, Gujarat and Karnataka etc. have reduced AT&T losses to 15 percent as committed in the reform plan. Most of the other utilities have shown very poor performance in this regard. The performance of select distribution companies is elaborated in Table 4.6.

As is shown in the table 4.6, in a few states AT&T losses are unacceptable and need to be controlled immediately to restore the financial health of utilities. Though the regulatory commission has urged the respective utilities to control the losses, in most of the cases, the utilities have failed to achieve the regulatory targets.

Table 4.6: AT&T Losses for Selected Distribution Companies

States	FY 2004-05	FY 2005-06	FY 2006-07
Five worst performing utilities (Public Sector)			
Manipur	89	78	94
Jammu & Kashmir	68	67	68
Uttar Pradesh (Poorv VVN)	58	46	63
Jharkhand	63	52	52
Bihar	83	78	43
Five best performing utilities (Public Sector)			
Himachal Pradesh	22	15	13
Tamil Nadu	19	21	20
Goa	18	15	19
Andhra Pradesh (APCPPL)	14	13	12
Karnataka	27	21	12
Private distribution companies			
Delhi	43	40	34
Orissa	43	40	40
All India	35	32	NA

Source: Report of Power Finance Corporation (2008)

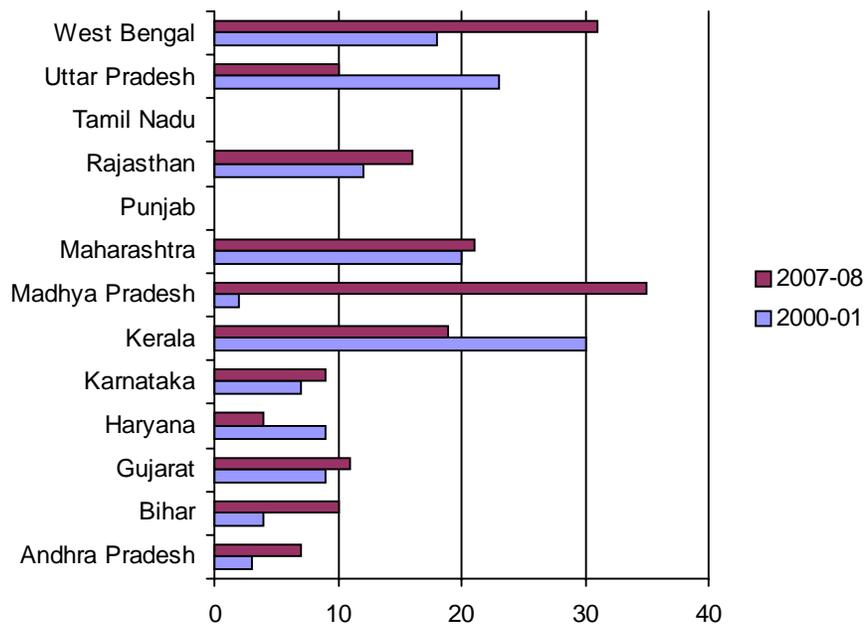
For example, the utilities of Punjab and Rajasthan fell short of the loss reduction target by three-six percent during FY 2006-07. For this purpose some effective compliance mechanism needs to be ensured. This is a non-political issue and regulatory bodies should seek required support from the respective government to curb high losses. Some incentive scheme should be offered to consumers with the support of local people's representatives as well. This will help not only in reducing the T&D losses but also in improving the quality of service.

Progress in Tariff Rationalisation

As per the Electricity Act 2003, the national tariff policy requires regulators to fix tariffs on the basis of sound economic principles. Cost of supply and efficient use of electricity are the key factors that need to be taken into account while fixing tariffs for end users. The tariff policy requires elimination of the cross-subsidy existing in the present tariff structure.

However, as a result of political pressure, there is very little progress in tariff rationalisation. Though ERCs in principle have accepted rationalisation of tariffs, the tariff structure is highly skewed. In all states, the tariff for industrial consumers is the highest, at around Rs 5/Kwh in many states, while the tariff for agriculture is highly subsidised. The tariff charged for agriculture is just a fraction of the tariff charged for industrial consumers. The trend in this ratio is given below.

Graph 4.1: Agriculture Tariff as a Percentage of Industrial Tariff



As is shown in Graph 4.1, the agricultural tariff is highly subsidised. All major states are covered. The graph shows that in a majority of the covered states, the average tariff charged from agriculture sector is below 10 percent of that charged from industry. For the FY 2007-08, the ratio was above 30 percent in only two states, West Bengal and Madhya Pradesh.

Further, the power subsidy has been provided in an untargeted manner. In all states, the subsidy is available to all farmers irrespective of amount of use or the size of land holdings etc. Some studies show that a lion's share of the subsidy is being utilised by big farmers. The subsidy also has had a negative impact on the ground water table in many states, including Punjab, Maharashtra and Andhra Pradesh, due to continue use of groundwater. However, respective governments have paid very

little attention to the problem and continued with subsidisation. As result of low tariffs, the share of agriculture in total power consumption has increased substantially while the relative share of industry has decreased significantly. This has adversely affected the financial viability of electricity distribution companies. Table 4.7 provides relevant details.

Table 4.7 shows that the relative share of agricultural consumption varied from 20-40 percent across select major states in FY 2006-07 except for West Bengal where the share was six percent. However, the share of agriculture in total revenue generated through tariffs is less than 10 percent in most states. The condition in states like Haryana, Andhra Pradesh, Punjab, Karnataka and Tamil Nadu is alarming and needs to be controlled through proper rationalisation of tariff structures. Though the state governments pay some subventions to distribution companies on account of subsidy to the agriculture sector, the subsidy has not been adequate for bridging the full deficit resulting from the subsidisation policy. Often the state government has been irregular in releasing the committed amount of power subsidy.

Table 4.7: Percentage shares in total consumption and revenue generated from levy of tariffs (2006-07)

State	Agriculture		Industry	
	Share in power consumption (in percent)	Share in revenue (in percent)	Share in power consumption (in percent)	Share in revenue (in percent)
Bihar	16	3	19	32
Haryana	41	6	27	47
Punjab*	30	0.37	36	56
Andhra Pradesh	36	1	30	48
Karnataka	38	8	23	37
Tamil Nadu*	21	0	39	58
Gujarat	34	11	42	62
Maharashtra	19	11	50	56
Rajasthan	33	16	34	46
Uttar Pradesh	20	10	24	43
West Bengal	6	2	2	35
All India	24	6	36	50

Source: Report of Power Finance Corporation (2008)

* Providing free power to agriculture sector

4. Competition Issues in the Industry

As stated, one of the core objectives of the Electricity Act, 2003 and policy is to enforce fair competition among industry operators to achieve economic efficiency and maximise social welfare. The unbundling of the integrated electricity boards was a key measure undertaken to make the industry more competitive. The existence of multiple generators and distribution companies is supposed to facilitate healthy competition in the wholesale as well as retail markets.

In a regulated electricity market such as India, a competitive bidding process may be very useful in promoting economic efficiency in generation segments. For example, during the bidding processes conducted for the Ultra Mega Power Plants (UMPPs), efficient prices have been discovered through competition among public and private sector firms.

India has broadly followed the World Bank approach in introducing competition in the sector. Unbundling, privatisation and open access to T&D networks are the key drivers of competition. UK had also implemented the same model where competition was promoted in the wholesale as well as retail energy markets through prior arrangement. Australia is yet another example where public-owned integrated utilities have been unbundled and privatised to facilitate competition in the sector¹⁰.

A study conducted by The Energy and Resources Institute (TERI) concludes that there are various challenges to competition sector in India. There is a need to facilitate open access and market reforms to promote competition in the sector¹¹. There are a few relevant studies that are useful in ascertaining the scope for competition as well as regulatory impact assessment (RIA)¹². Broadly, these studies suggest that the assessment should be done taking certain parameters that determine the scope for competition in the market such as entry barriers, market power, access to common carrier, efficient regulation etc. CA based on some key parameters is given here.

Barriers to Entry

Removal of entry barriers is one of the main objectives of the Electricity Act, 2003 and National Electricity Policy, 2005. To ensure free entry in the business, unbundling has been done and integrated SEBs restructured. As per provisions, the generation business is now fully de-licensed. The Act allows free entries for the purpose of transmission, distribution and trading. Further, in rural areas, no license is required for generation and distribution.

However, in practice, there are many barriers to free entry. For example, the poor financial position of distributors often deters potential investors. Unless generating companies are assured of revenues from energy sales, these would not be willing to make new investments in the sector. Bundling of the distribution and retail supply business is another major issue creating hurdles for new entries in the distribution business. Though the Act allows for a parallel licence in the distribution business, none of the ERCs have implemented this provision because of complexities in implementation.

Price Control

The degree of price control is another important indicator of competition. Ideally, the market forces should determine the price. If the market is reasonably mature, there should be no arbitrary interference in the market. In that situation, the market clearing price is the best for the purpose of allocative efficiency. On the other hand, detailed price regulation leaves poor scope for competition. Under detailed price regulation, firms are able to earn only maximum allowable return. Therefore, it does not provide an incentive to the firm to invest in cost cutting strategies.

In the context of electricity regulation in India, SERCs have adopted a cost-plus method coupled with annual revision of tariffs. This makes the process complex and time consuming. Frequent changes in tariff structures do not provide a good signal to existing players in the market. In order to formulate and implement an appropriate strategy, the utilities need a stable tariff structure. A few ERCs, such as CERC, Rajasthan, Delhi, Haryana, Andhra Pradesh, Gujarat etc. have initiated implementation of a Multi-Year Tariff regime, which would help in creating competition and achieving economic efficiency in the system.

Separation of Competitive and Non-competitive Segments

Historically, the electricity supply industry (ESI) was operated in an integrated system. Separation of carrier and content is important for generating competition in the industry. In most countries, unbundling of the sector into different functions – generation, T&D etc. – has been done in order to facilitate competition in the sector.

India has achieved adequate progress in this regard. About 18 states have unbundled SEBs and other states are in the process of doing so. However, in practice, the utilities within state jurisdictions are controlled effectively by the respective state governments and there is absence of competition enhancing rivalry among the firms.

Access to Common Carrier

Access to common carriers is a pre-requisite for the introduction of competition in the sector. If industry players are prohibited from accessing common carriers, it is likely to result in market imperfections such as abuse of dominance. Though the Act and policy require the ERCs to ensure unbarred open access to the T&D network, in practice it has not been implemented.

About 50 percent of all regulatory commissions have passed open access regulation requiring respective utilities to ensure open access. But, most of the utilities seemed to be reluctant to provide open access, thereby impeding free functioning of the market mechanism. In India, captive generation capacity accounts for approximately 25,000 MW, which is either unutilised or partially utilised in the lack of open access to the T&D network. Generally, the local distribution companies offer lower tariffs to the domestic captive power plants and force them to sell power only to them by not allowing open access. Most of these have cited inadequate capacity as the reason for the inability to provide open access. This tendency has resulted in violation of the competition code and a major barrier to competition.

Grants of Exclusive Rights to Operate and Purchase

Exclusive rights to operate and purchase sometimes result in monopoly or even 'abuse of dominance'. These rights prevent other potential firms from entering the market. These may be enforced through long term contracts, such as power purchase agreements (PPAs), which provide exclusive rights for bilateral sale or purchase of power. Consequently, the transactions based on PPAs are not a part of the market mechanism. In the Indian case, even after unbundling, the generating companies are bound to sell their entire output to the respective distribution companies in the concerned state. This serves as a barrier to competition.

Distribution companies have also been granted exclusive rights to operate and purchase. After unbundling, two-three distribution companies have come up in each state. However, effectively all companies have been enjoying exclusive rights to serve the end users of electricity as the area they collectively serve has been split into regional monopolies. The ERCs should issue parallel licences in the distribution business as required in the Act. It will promote competition and provide electricity consumers with improved quality of service and wider choice.

Presence of Dominance Position and Market Concentration

Dominance is often considered a threat to competition since it may be misused to exploit consumers or unfairly defeat market rivals. If the market concentration ratio is quite high it leaves scope for the firm to avoid real competition. In the electricity market, the market concentration ratio is very high. In generation, about 28,000 MW of power generating capacity is controlled and managed by the National Thermal Power Corporation (NTPC) alone, which accounts for a 20 percent share in total national capacity.

Some experts have also raised concerns about the policy pertaining to UMPPs. The governments are in the process of finalising the bid for nine UMPPs, each having a capacity size of 4000 MW. The results are quite surprising if their huge capacity in the context of the already installed capacity in state utilities across India is looked into. Out of a total of 29, there are only seven states with total installed capacity exceeding 5,000 MW. The average is only 2600 MW, as of December 2008.

Further, in the bid process for UMPPs, Reliance Power has won the bid for three plants so far. The company may abuse its dominant position in the future to affect the functioning of the market. Therefore, there is a need to enforce effective regulation to prevent use of market power for exploitation of consumers and unfair dominance of rivals.

The T&D business is also highly concentrated. At the state level, there are single transmission companies while distribution companies also practically enjoy monopoly powers in their respective jurisdictions.

Lack of Competitive Neutrality

Lack of competitive neutrality means provision of preferential treatment to select market operators. This treatment may be a result of action on the part of regulatory bodies or the government. Preferential treatment definitely protects the incumbent utilities from competition. As mentioned, the government owns most of the electricity utilities. Only in generation business is there a reasonable number of private players. According to the recent policy, new generating capacity would be added only through a competitive bidding process. The process is equally open to all players – public-owned as well as private sector firms.

However, during allocation of grants for reforms under the APDRP, differential treatment of private and public sector entities has been observed. The Government of Orissa has criticised the Ministry of Power,

Government of India for not releasing money to private companies operating in the state.

Information Asymmetry

Adequate and reliable information about the demand as well as the supply-side is crucial for facilitating competition in the sector. The CERC and SERCs have taken many steps to improve the quality of information. Every utility is required to submit the required data on an annual basis. Energy exchanges as well as power traders have played an important role in removing information asymmetry in energy transactions. However, in the distribution segment, the quality of information is poor. Most of the supply to the agricultural sector is un-metered. Consequently, the estimates of consumption and energy losses are not reliable.

Role of Competition Authority

The job of the regulatory bodies is to promote competition in the market by addressing barriers. An appropriate regulatory environment is required for enforcing competition in the sector. Apart from the sector regulator, the competition authority also can play an important role in facilitating competition in the sector. There are certain issues, such as cartel formation, abuse of dominance, competitive neutrality etc. where the roles of the sector regulator and competition authority may overlap. Such overlap needs to be addressed carefully. For this purpose, an appropriate interface is required between the sector regulator and the competition authority. India has recently constituted the CCI. Once the CCI is fully equipped and functional, the quality of regulatory action is likely to improve.

5. Conclusion

After independence, the power industry was operated under government management and control. Given the essential nature of the service and its usefulness to each section of society, political groups took active interest in the sector and influenced the policy and the decision-making process. As a result, the utilities lacked professionalism and commercial outlook. Though the government invested adequately in increasing installed capacity, adequate efforts were not made to increase operational efficiency in the pre-reform period. High T&D losses, low recovery of dues and subsidised consumer tariffs resulted in huge commercial losses and ultimately a financial crisis. A few SEBs also had to incur debts to bridge the operational deficit. This poor state of affairs led to the restructuring of this sector.

Power sector reforms were initiated to overcome mentioned technical and financial problems. The government has completed the required preliminary exercise through the enforcement of the Electricity Act, 2003. The job of independent regulatory bodies under this Act is to facilitate fair competition in the sector and ensure economic efficiency. While taking decisions on tariffs, revenue, investment, output etc. regulators are required to abide by sound economic principles.

However, it has been observed that the policy and decision-making process in the power sector is still affected by political interests. By and large, the selection process of regulators is being controlled and manipulated by the respective governments. The state governments have also interfered in regulatory matters. Some governments have also rolled back the tariff hikes proposed by SERCs to cater to vested interest groups.

Directly or indirectly, governments have put pressure to keep the agriculture tariff very low despite the fact the cost of supply to agriculture was higher than in other categories. The tariff revenues from the agriculture sector have been only a fraction of the total costs of supply to this sector. This has adversely affected the financial viability of utilities. Further, many governments have also not paid dues on account of subsidy announced by them.

Competition has not been facilitated to the extent required by the statute and policy. The open access to T&D is a key driver of competition in the wholesale as well as retail markets. Regulatory bodies have passed open access regulations requiring utilities to make the common carrier available for the use of market participants. However, due to the lack of adequate network capacity and willingness of T&D companies, it has mostly not been implemented. As a result, a huge amount of captive capacity is unutilised.

The method of tariff regulation followed by regulatory bodies is also not effective for facilitation of competition in the sector. The rate of return method used for tariff approval has not provided incentives to utilities to reduce the cost of service.

Consumer participation has also been very ineffective in most cases. Though a few regulatory bodies have tried to encourage consumers to participate, others have not taken proactive steps to ensure adequate consumer participation in the decision-making process.

This analysis shows that there is scope for efficiency improvements and increase in competition, transparency and public participation. To improve the quality of service and promote fair competition, the following suggestions are in order:

- The government should provide adequate policy support to the regulatory bodies. Mere constitution of independent bodies is not sufficient unless state governments provide proper support. Whether it is a matter of power subsidy or budgetary support to regulatory bodies, the role of the government is very important in improving the quality of regulation and generating positive outcomes.
- The regulatory bodies should ensure effective compliance of various provisions of Electricity Act, 2003 and other policy and regulatory guidelines. The responsibilities of various officers should be fixed to promote accountability and effective compliance.
- Unbarred open access is the key driver to competition in wholesale as well as retail markets. Recently, the Planning Commission has taken an initiative that requires utilities to sell some minimum amount of energy through open access. SERCs should also force respective transmission utilities to make the network available to open access consumers.
- Some more steps need to be taken to rationalise the consumer tariff. The existing high cross-subsidisation should be phased-out as required in the national tariff policy. Consumption should be allowed only through metered supply and the tariff structure should ensure efficient use of power.
- Gradually, the ERCs should shift from detailed tariff regulation to a more appropriate approach such as 'Multi Year Tariff' (MYT) system which has already been enforced by the CERC, and subsequently by a few ERCs. It will promote economic efficiency and provide a better signal to the existing as well potential investors.
- More transparency and public participation should be ensured in the regulatory decision-making process. This will not only help in increasing the acceptability of regulatory decisions but also reducing energy losses and facilitating better recovery of electricity dues.

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Competition and Regulation in the Indian Port Sector

Introduction

Ports play a crucial role in the Indian transportation sector and hence in the country's economic development. 95 percent of India's international trade by volume and 77 percent by value moves through Indian ports. India has 12 major and 187 minor seaports along a coastline of over 7000km spreading across nine coastal states. Major ports dominate accounting for about 75 percent of total Indian port traffic with Vishakapatnam leading the pack. However, in recent times, non-major ports have also been witnessing a growth in traffic. The overall capacity of non-major ports is expected to more than double from its present levels by 2011-12¹.

In India, major ports are a subject in the union list of the Constitution, and are administered under the Indian Ports (IP) Act, 1908 and the Major Port Trust (MPT) Act, 1963. Minor ports are a subject under the concurrent list and are administered under the IP Act, 1908. Minor ports have always been less regulated than major ports.

The TAMP is an important regulatory body which was established in 1997 to regulate tariffs in major ports for facilities provided, property used and services rendered such as pilot age, hauling, mooring, re-mooring, hooking, measuring etc. It was assigned the ultimate objective of moving towards competitive pricing. Apart from TAMP, the other regulatory bodies are State Maritime Boards which have licensing and regulatory functions².

TAMP is still largely under Central Government's control and has limited autonomy/independence as a regulator. It is primarily constituted by three commissioners, with expertise in Ports, Finance and Economics, who are appointed and removed by the Central Government. The selection procedure of the chairperson/members of TAMP is not altogether transparent and controlled entirely by the Central Government. Regulation by TAMP is incomplete as it does not have the mandate to regulate performance, selection of private parties for contracts and other services.

TAMP has adopted a 'cost plus' approach to tariff fixation with a pre-determined rate of maximum permissible return. However, cost-plus tariff regulation has been criticised on the grounds that it does not recognise and reward efficiency improvements. Moreover, cost estimation may be difficult.

The objective of this chapter is to evaluate regulation and competition within the port sector in India. This is done through an examination of outcomes. Section 1 examines the trends in port transportation. Section 2 analyses policy initiatives and their effects on the sector. Section 3 highlights the extent of private participation in the sector. Section 4 analyses political economy aspects. Section 5 reviews implementation modalities. Section 6 makes an assessment of the capability of the current regulatory structure to facilitate competition through 'competition assessment' techniques. Section 7 discusses recommendations in detail. Section 8 concludes.

1. Trends in Port Transport

The share of container traffic in total cargo traffic through ports is rising at a faster pace. Container traffic accounted for 80 million tonnes (6.0 million TEUs) out of a total of 649 million tonnes of cargo traffic in 2006-07, i.e. around 12 percent. The CAGR of container traffic for the last five years (2002-07) is 22.9 percent which is higher than the world average for the same period.

Trade growth, penetration of containerisation, and emergence of hub and feeder service structures have been the drivers of container traffic growth. There exists a potential for higher container traffic growth in the future because of growth in India's international trade being associated with a trend towards greater containerisation of trade in finished goods. Presently, containerised cargo represents about 30 percent by value of India's external trade. This proportion is likely to grow as the corresponding global proportion which is also projected to increase from the current 68 to around 75-80 percent (World Bank, 2007).

On the basis of growth scenarios and studies, it appears that growth of international trade and penetration would result in Indian port traffic reaching 21 million 20 foot equivalent units³ (TEUs) by 2015-16. As per the projections made by a study of the Jawaharlal Nehru Port Trust, 9 million TEUs of the mentioned 21 million TEUs will be hubbed⁴ [JNPT, 2006]. If 50 percent hubbing were to take place in India, then 4.5 million TEUs will be hubbed, implying transshipment handling of 9 million TEUs. This requires port handling capacity of 30 million TEUs, with transshipment of 9 million TEUs at hub ports.

Shipping trends will play an important role in deciding whether the Indian ports have potential for hub operations. Hinterland connectivity is critical in ensuring a seamless flow of containers and improved port productivity. Currently, according to estimates, 30 percent of port traffic moves towards hinterland by rail and the remaining moves entirely by road, mostly to nearby Container Freight Stations (CFSs), and some to interior Inland Container Depots (ICDs). There are also issues with respect to evacuation of containers associated with ICDs. There is a lot of road-based congestion due to insufficient infrastructure. Interfacing with customs is another issue.

According to a recent World Bank report, the hourly container handling rate at JNP of 10-12 is far inferior to the 35, 38 and 69 hourly moves at Colombo, Bangkok, and Singapore respectively. While Colombo handles an average of 1,360 TEUs per day and Bangkok 1,280 TEUs, Madras (Chennai) handles an average of 307 TEUs per day and Bombay (Mumbai) 218 TEUs. The poor productivity of Indian ports results in significant congestion in addition to long hours spent at the berth. Ships owned by the Shipping Corporation of India (SCI) reportedly spend 52 percent of their time in ports. The ship turnaround time in Indian ports is between five-six days, while it is barely six-eight hours in other ports in the region. As the daily port cost of a container ship in Indian ports is in the US\$15-20,000 range, an Indian port call results in very high voyage costs⁵.

Furthermore, sending mainline vessels to Indian ports is a non-option for major operators as the unusually long port stay jeopardises their tight schedules and breaks down the finely tuned supply chains of their customers. Container handling costs in India are about 80 percent higher than those in Japan and the US, where the labour costs are much higher. The cost of such port inefficiency is ultimately borne by Indian exporters and consumers. Thus, despite the low labour costs and production economies of Indian manufacturers, the resulting higher landed costs render their exports non-competitive *vis-à-vis* those exported from other more efficient ports.

2. Policy Initiatives and Their Effect

The major policy decisions in the port sector in India are controlled by the government and the Ministry of Shipping. The Ministry of Surface Transport is often consulted while issuing policy guidelines for implementation in the port and shipping sector. The government is envisaging the commercialisation/privatisation/modernisation of major existing ports for pursuit of the objectives of technological up gradation and overall improvement in performance levels.

Measures to strengthen the regulatory structures of major ports have also been initiated with tariff rationalisation and establishment of a corporate structure. Measures to promote foreign investment have also been taken by allowing private/foreign participation that entails formation of joint ventures or foreign collaboration for setting up port facilities. 100 percent foreign direct investment (FDI) is permitted for construction and maintenance of ports and harbours and in projects providing support services to water transport. The government is also offering various fiscal incentives to private investors and has also allowed private sector to set up captive facilities⁶.

The Build-Operate-Transfer (BOT) model is generally being used for private sector participation with the assets reverting back to the port after the concession period. Major ports have been permitted to form joint ventures with foreign ports, minor ports and other companies to attract new technology and better management practices, and facilitate implementation of development schemes and creation of optimal port infrastructure.

An independent Tariff Authority for major ports has been set up to fix and revise the ceiling tariff. A ten-year tax holiday can now be availed in a block of 15 years for operating infrastructure facilities relating to port, inland port and inland waterways, with effect from April 01, 2002.

In addition to the above discussed policy an initiative to introduce a tonnage tax will facilitate a level playing field in the Indian shipping industry. Introduction of tonnage tax would put a tax burden of only 1-2 percent as compared to the present corporate tax of around 35 percent. An estimated 89 percent of the world's fleet functions under a nominal tax regime with negligible or very small tax burden. Indian shipping has been seriously affected by this as competing foreign lines have a tremendous advantage over Indian lines in the form of far lower tax outgo. Lower profitability of Indian lines thus affects their ability to generate resources for financing ship acquisitions, resulting in stagnation of Indian shipping tonnage.

To boost development in this sector, many policy initiatives have already been taken. Marine charges for mainline container vessels have been restructured to match the levels prevalent in neighbouring foreign ports. This will wean away transshipment cargo from the foreign ports. Tuticorin Port has taken the lead in implementing the government's decision by reducing the basic marine charges for mainline container ships by 65 percent. Introduction of hourly berth hire charges in the ports has provided an incentive to the ships to leave the ports immediately after completion of discharge or loading⁷.

Shipping and port services are interlinked with the cost of the latter determining the viability and cost of the former. The Cabotage law restricts operation of free market forces and thus limits competition in the shipping sector in the following manner:

- i. Licenses issued by the government are required to take an Indian ship out to sea from a port or any other place in India.
- ii. There are government restrictions on the movement of ships: the coasting trade of India is exclusively reserved for Indian ships or foreign ships granted licenses by Indian authorities.
- iii. Even in the case of Indian ships or ships chartered by Indian citizens or companies the Director General of Shipping has powers to give directions regarding route and cargo etc.

Policy initiatives have focused on the development of existing public sector ports with a segmented approach to privatisation rather than the development of Greenfield ports. The development of the port structure through privatisation would involve resource and labour related complications. Further, various requirements impact competitiveness in the operation of ports: cabotage laws which restrict the movement of foreign vessels carrying cargo near the Indian coast and legal requirements which provide Indian dredgers advantages over foreign dredgers in getting dredging contracts.

3. Private Participation

The extent of private participation in any sector often indicates the degree of competition in the sector. Given the existing set up, private and foreign investment in ports is being encouraged by the government in order to meet the gap between increasing demand and available port capacity. The government has opened up its major ports for private sector participation to mobilise required resources; improve efficiency, productivity and quality of services; and bring about competitiveness in port services. The government has formulated a comprehensive policy for the maritime sector which seeks to achieve harmonious and coordinated development of maritime assets such as ports, shipping, inland water systems and ship building and repair industries.

The National Maritime Development Programme formulated by the Ministry of Shipping intends to raise performance in the maritime sector to the level of international bench marks. The total investment envisaged in the programme is Rs100339 crore, out of which Rs 55084 crore relate to the port sector. In the port sector, 27 projects involving Rs 55084 crore have been identified for implementation by 2011-12; of this Rs 34,505 crore (62.6 percent) would come from the private sector, Rs 3609

crore (6.5 percent) through budgetary support and Rs13,772 crore (25 percent) through internal accruals.

Privatisation is expected to enhance efficiency of transport and reduce the cost of logistics, comprising packaging, storage, transport, inventories, administration and management. India spends about 13 percent of its value of international trade on logistics as against an average of 10 percent in the case of other developing countries. This indicates the huge potential to boost cost efficiency in logistics with transportation, warehousing, distribution and material handling costs poised for explosive growth in India. The benefit of efficiency in logistics is indicated by the fact that if the cost of logistics decreases by one percent the national economy will be benefited by about US\$5bn (about Rs 22,500 crore)⁸.

In order to ensure that exports from India remain competitive in global markets and prices of imported goods as low as possible, the cost of transportation of goods should be minimised to ensure competitiveness of exports as also. Therefore, Indian ports and shipping must achieve international levels of efficiency and productivity.

Development of Minor Ports and their Constraints

The share of major ports in total cargo traffic has been steadily declining with corresponding increase in the share of minor ports. Private sector participation has been mostly in the development of minor ports, especially in Greenfield Ports. While several Greenfield port projects at Pipavav, Mundra, and Dhamra have been taken up by private port developers, several contentious issues need to be resolved before these projects really become viable. Thus far, barring the Mundra port, all other Greenfield port projects have not managed to achieve the envisaged traffic. The major problems encountered by them are:

Cargo Traffic Demand

Greenfield port projects need to clearly establish that there is distinct advantage in moving to the proposed Greenfield port location, in terms of landed or loaded freight, as compared to the existing gateway port. Only then can a stable and growing volume of cargo be generated.

Logistical Linkages

Greenfield port projects need to offer a clear advantage in logistics in terms of proximity to cargo hinterland, railroad connectivity and other facilities for handling cargo. The success of a Greenfield port project thus hinges on the extent of collaboration among a wide range of institutions, including maritime development boards, railways, state governments and other service providers under a commonly agreed port development plan.

Preference of Shipping Lines and Shippers

Development of a new port is justified only if it is envisaged that: a) it would be profitable for shipping lines to run their services to the new port; and b) economies of scale would be generated through attainment of the critical threshold levels of cargo volume and parcel sizes.

Environmental Issues

The development of many potential port projects (Tadri, Vardhaman etc.) has lost steam because of environmental objections. Greenfield port projects need to be backed up by a comprehensive national port development plan, based on intensive environmental impact surveys by the Nautical Adviser to the government. Port developers, can in turn, purely focus on developing the port and other facilities without having to obtain environmental clearances on a case-to-case basis.

Bankability of Greenfield Port Projects

The litmus test of a Greenfield port project consists in the bankability of the project in terms of the expected returns on the potential business. An effective risk mitigation strategy needs to be put in place in terms of roles and responsibilities of different players or stakeholders under a common consortia arrangement, as equity partners or guarantors of the project. The State Maritime Boards or the government needs to provide collateral support.

Though there is no statistical evidence, it seems that development and successful operation of minor ports with greater private sector participation poses a challenge to major ports. There is strong evidence of this in Gujarat and Andhra Pradesh where the successful operation of minor ports has brought down the volume of traffic in major ports.

Privatisation Processes Need Tuning

There are several aspects of port privatisation in India that need fine tuning. These include strategic long term policy as well as tactical mundane issues, such as power and water supply to the private terminal operator. The expanded role for market forces and a changed role for TAMP would be necessary. The government has a role to ensure that no private terminal operator monopolises the sub-continent's container trade. The government's scarce resources are better used for this purpose rather than traditional regulatory activities like price control. Even a small port could be run successfully if all required services are integrated and operated efficiently for the benefit of port users. The efficient operation of auxiliary services is very important for the success of port projects and an integrated approach to port development from the shipper's perspective would yield the desired results.

Box 5.1: Privatisation of Minor Port – Kakinada

Ocean Sparkle Limited (OSL), a Hyderabad-based company, got its first major breakthrough in 1996 when it bagged the comprehensive operation and maintenance (O&M) services contract at Kakinada. The services provided by OSL include pilotage, tug operation and maintenance, mooring services, ship traffic communications etc., i.e. the whole gamut of services from the point of vessel arrival to departure, thereby providing Single Point Accountability to the port authorities. After acquiring its first port operations and maintenance contract at Kakinada, the company has extended its operations on the east and west coasts of India.

OSL is active in coastal transportation on the east coast. It has a dedicated fleet of 12 steel barges and two tug boats carrying out lighterage (the loading or unloading of a ship by means of a lighter barge), especially when shallow waters prevent an ocean going vessel from approaching a berth, or if berths are unavailable⁹ and transportation along the eastern coast. In the recent past Kakinada's importance in receiving edible oil imports has grown at the expense of Vishakapatnam: OSL claims that this was the direct result of efficient lighterage operations conducted by OSL. Its fleet has handled lighterage and storage of dry and liquid cargoes, setting new yardsticks in material handling at the ports of Kakinada, Visakhapatnam and Paradip. Even though there are several companies engaged in such operations, it was important to be a world-class player and create for itself a technological niche in this specialised industry. In overseas activities, a beginning has been already made in Bangladesh. The company intends to spread to international ports in the Gulf and East Asia, especially in Singapore.

Despite the recent initiative at JNP, India's premier container port, it is unlikely that this would propel it into the top tier of world class container ports. Present port planning in India still lacks the vision to create an indigenous gateway port despite having a definite need for it. The nation's container traffic would thus continue to transit through Colombo, Singapore, and Dubai or other Arabian Gulf ports. However, none of these should undermine what has been accomplished at JNP. The involvement of a private operator to run its new state-of-the-art container terminal is epoch making and amounts to a psychological breakthrough in the nation's port planning, development, and operations.

For privatisation of ports, both major and minor to be successful, a proper appreciation of the importance of involving labour in privatisation plans is paramount to their successful operation. In fact all the major ports have labour issues which need to be factored in before the privatisation is attempted.

Box 5.2: Agreement between Mumbai Port and ICTPL

In December 2007, Mumbai Port and Indira Container Terminal Pvt Ltd or ICTPL (a subsidiary of Gammon India and Dragados SPL, Spain) entered into a license agreement for operation and management including necessary development and augmentation of the facilities of gas stations. The parties also agreed on key issues relating to development, construction, operation and management of an Offshore Container Terminal in Mumbai Harbor. With reference to employment by ICTPL, the port has stated that employment at the Ballard Pier Station (BPS) Terminal would be limited to only 50 people after the transfer of the terminal to a private bidder. The port has issued a circular inviting employees and workers to apply for jobs to Gammon India, which has bagged the BOT contract relating to work on the offshore container terminal.

The move by Mumbai Port Trust was opposed by the Transport and Dock Workers' Union of India since it could render around 100 employees out of the 151 stationed on the port's Ballard Pier Station jobless. The Unions allege that the port is also violating the Government of India's guidelines on privatisation of ports. As per the amended guidelines, 'Private Sector Participation in Major Ports through Joint Ventures and Foreign Collaborations', dated June 01, 1998, the port needs to ascertain the number of employees that will be rendered unemployed before tendering the project for privatisation. Also, as per the guidelines, all the existing employees need to be absorbed by the successful private bidder.

Similar privatisation has been undertaken by Cochin Port Trust and Chennai Port Trust but the agreement included a non-negotiable condition related to employment of all those employed at container terminals before these were handed over to the private bidder.

4. Political Economy of Ports

There is a clear-cut divide between the public sector and private ports in terms of funding, cargo allocation especially government cargo, tariff controls and management of ports. The major ports were established by Acts of legislature and funded/run by the Central Government. As a result, these were effectively controlled by the government and generally influenced by political and bureaucratic interference in their decision-making processes. Empirical evidence from major maritime nations suggests that political interference does have negative influence on the development of ports¹⁰.

In India, in spite of liberalisation the government still owns and regulates the major ports. There is a growing demand for more cargo services with the growth of international trade. Consequently, there is a demand for efficient port services but political response to this demand has not been very encouraging. The government does not provide any autonomy to the major ports for privatisation with innumerable controls on the process of port privatisation and tariffs. The ports work continuously under political and bureaucratic pressures, with prior permission required from the government even for allocating auxiliary port services to private players. Even decisions taken to improve the performance of ports through labour reforms do not remain implemented for long because of bureaucratic/political pleas for soft handling of labour union matters.

In the 1980s, the government neglected port expansion through controls on spending of accruals to ports which led to deteriorating port services, obsolete equipment and infrastructure. All this led to deterioration in quality of port services; as a result today there are very few ports which can deliver world class service at a competitive cost. Only a few ports are internationally competitive in terms of efficiency indices such as turnaround time: berthing delays continue to pose problems for shipping companies. All shippers operate with very thin margins and therefore tend to take their business to the more efficient ports in the Southeast Asian region, especially the extremely competitive ports of Singapore and Kelang.

The political influence on ports is exerted through direct control and labour unions. Unregulated trade unions and lack of coordination among them create hindrances and increase harassment of port users. Proper planning and its implementation are hampered due to political influence. The leaders of the port and dock workers' unions are so powerful that they regularly cripple the port administration by calling strikes on various pretexts. Large political parties also use the labour unions for implementing their agenda. No punitive measures are taken even when

allegations of irregularities are raised against the Dock Workers' Management Board. Inefficient management and lack of proper planning are responsible for such lapses. The ministry-centric port management system is a complex bureaucratic process. It leads to unnecessary delays and opens up opportunities for wielding political influence.

The port authority also depends on the Ministry for sanctions and advice on important decisions. As a result, decision making is delayed resulting in the harassment of port users.

Government Domination

The political aspect of regulation in the maritime sector is also linked to the domination of all maritime activities by the government. The government has large stakes in ship building, ship owning, dredging and port activities. The government owns and operates the largest shipping company, the SCI. The share of SCI in total Indian tonnage in terms of gross tonnage (GT) is about 34 percent and in dead weight tonnage¹¹ (DWT) terms about 35 percent. The government plays an active role in the policy relating to the acquisition of ships and in the provision of contracts to SCI. In fact, majority of the public sector oil/fertiliser/coal/steel companies engage SCI to meet their transportation needs. Thus, competitive neutrality is certainly absent in this sector.

Similarly in dredging, barring a few private players, the Dredging Corporation of India (DCI) is the largest dredging company in India and seventh largest in the world, controlling around 90 percent of maintenance dredging at all the major ports in India. The maritime policy also gives favourable treatment to Indian ship and dredge owners. The favourable treatment also has legal backing in the form of cabotage laws (favourable treatment to domestic ship owners with a right of first refusal). This can be elaborated as follows:

Right of First Refusal and Purchase Preference Stemming from PSU Status of DCI

When a foreign company emerges as the lowest bidder for a contract DCI or any domestic private dredging firm has the right of first refusal, i.e. it is given the chance to quote an amount which does not exceed the private bid by more than 10 percent. If it does so it is preferred to the foreign firm.

Till recently, even if the lowest bidder was a private domestic firm then the same privileges of first refusal were again given to DCI, i.e. it was preferred over the private firm if it quoted an amount which did not exceed the private bid by more than 10 percent. The guidelines regarding

such purchase preference were valid until March 31, 2004. The Government of India has yet to review the purchase preferences accorded to public sector undertakings (PSUs), which historically have been renewed every two years.

Nomination Process

As per dredging policy followed, till recently the port trust was allowed to finalise the contract through a nomination process, i.e. all major ports could choose to negotiate with DCI directly for dredging services rather than go through a competitive bidding process. However, the nomination process at all major ports other than Kolkata has been done away with. DCI's ongoing long-term contracts with major ports, however, still remain intact.

The government domination of the port sector has ensured the use of port policy for promotion and development of public sector ports. However, in doing so, in recent times it has encouraged the private sector to take the lead in development activities and operations in these public ports. The policy encourages formation of joint ventures between a major and a minor Port and among major ports and private operators. The measures are aimed at facilitating the Major Port Trusts to attract new technology; introduce better managerial practices; expedite implementation of schemes; foster strategic alliances with minor ports for creation of optimal port infrastructure; and enhance confidence of private sector in funding ports.

Many major ports now operate largely as landlord ports – international port operators have been invited to submit competitive bids for BOT terminals on a revenue sharing basis. Significant investment on BOT basis has been undertaken by foreign players including Maersk (JNPT, Mumbai), P & O Ports (JNPT, Mumbai and Chennai), Dubai Ports International (Cochin and Vishakhapatnam) and PSA Singapore (Tuticorin). Minor ports are already being developed by domestic and international private investors.

Summary

In India, the board of trustees of major ports are directly or indirectly controlled by politicians: directors are often appointed for political reasons rather than their expertise. The appointed members of the port do not have direct political responsibility which leaves room for pursuing a long-term policy. The government machinery exercise its control in the name of National Maritime Development Policy (NMDP) and regulation through TAMP.

A review of trends in the political economy of ports reveal an initial substantive control of the state over regulation and finance; that control has seen some diminution with private domestic and foreign investment playing an increasingly prominent role. However, the government has been slow in reforming major and minor ports and relinquishing its influence on major and minor ports through corporatisation.

5. Implementation Modalities

All the Major Ports are administered by 'Port Trusts' (governed by the provisions of Major Port Trust Act, 1963) which are autonomous bodies, except the newly opened 'Ennore Port' which is run by 'Ennore Port Limited' (registered under the Companies Act, 1956). Besides, there is a subordinate office namely, the 'Andaman Lakshadweep Harbour Works' (ALHW). It is under the control of the Department of Shipping and entrusted with the responsibility of formulating and implementing the programme for providing port and harbour facilities in A&N and Lakshadweep Islands. The remaining ports are under the administrative control of the respective maritime state governments.

The current regulatory framework is indicative of control by many regulators with a multitude of legislations governing the regulatory framework of ports. There is a need to simplify, consolidate and harmonise all regulations not only across the port sector but also all transport sectors to ensure their proper coordination to better serve customers.

Present Regulatory Framework

In India, ports are a subject under the concurrent list and are administered by both Central and state governments. The Major Port Trusts Act, 1963 was amended by the Port Laws (Amendment) Act, 1997 to constitute TAMP, the regulatory body in the port sector. TAMP was constituted as an independent authority to regulate all tariffs, both vessel and cargo related as well as the rates for lease of properties in respect of major ports and private operators. TAMP notifies such rates and stipulates conditions governing their application. In addition to TAMP the 'minor ports' in the state are regulated by various state maritime boards.

The TAMP comprises of a chairman and two members appointed by the Central Government and follows a participatory process of consultation with user entities by means of interactive sessions and joint hearings to arrive at a decision. TAMP (Transaction of business) Regulations, 1998 provide for application of uniform norms, concepts, principles and

approach for tariff setting at all ports. TAMP has been followed the 'cost plus return on capital employed' approach and is yet to evolve a normative costing approach. The role of TAMP is to:

- safeguard the interest of shippers/consignees and other port users;
- ensure just and fair return to ports;
- promote factors encouraging competition and economic use of resources, efficiency in performance and optimal investment;
- establish costing methodologies (including cost plus method) and pricing principles;
- ensure transparency and a participative approach in discharging functions;
- use tariff leverage to improve operational efficiency of the ports; and
- ensure more competitive pricing in the long run and to push performance of Indian ports to internationally competitive levels.

The government has the potential to play a dominant role in tariff fixation by TAMP since it has the powers to modify or supersede the directions issued by TAMP. Such powers, if exercised, would undermine the independence of TAMP.

The Upcoming Regulatory Concerns

The maritime policy has certain features which may act as precursors to future policy in this sector. An important policy change mooted is integrated development of minor and major ports. Setting up of minor ports is being encouraged by state governments, such as Gujarat in a big way to cash in on the spill-over effect of such development. This has to some extent hit the businesses of major ports in their vicinity. The draft policy moots some restrictions on unhindered development of such ports through creation of a Directorate General of Ports. The draft, however, mentions that "such an authority would be set up after examining the modalities and scope of activities that would be consistent with the provisions of the concurrent list of the Constitution".

Another sticky proposal, which may not find favour from states, is corporatisation of all ports administered by state governments "so that they do not remain as departmental undertakings of the state maritime boards". Central assistance to state governments for port development will be conditioned on maritime states setting up maritime boards. The upgradation of the existing Maritime State Development Council, which has representation from maritime states and the Centre, to the status of a statutory advisory body, has been proposed. The draft also spells out the government intention of declaring select ports as Special Economic Zones (SEZs) in consultation with the Commerce Ministry.

For the first time, a comprehensive National Maritime Development Policy is being formulated which will facilitate enhanced private investment, improved service quality and greater competitiveness. The policy is being formulated to lay down the vision and strategy for development of the sector till 2025¹².

The Indian port sector is overwhelmingly under the influence of the 'services port model', with port trusts acting as authorities as well as operators. However, in recent years, there is a gradual movement towards acceptance of the 'landlord port model' with the granting of certain terminal concessions and provision of new port related services in major ports like Tuticorin, Chennai, Visakhapatnam and JNPT.

6. Competition Assessment

Government policies, rules and regulations that pose a threat to fair competition in the port sector in India do exist. Hence, it becomes essential to identify and address anti-competitive practices and policies prevailing in the sector. The 'competition assessment' is aimed at examining the positive and negative implications for competition stemming from the rules and regulations laid down by regulatory agencies.

According to Indian Ports Association Report 2008, the current situation of competition in the port sector in India is as follows:

- Inter-port competition is limited as far as major ports are concerned
- Inter-port competition within private ports is getting strong
- Inter-modal transport competition exists with road and rail but the supply is insufficient and inefficient
- 'Within port competition', i.e. competition among operators to provide services within ports is mostly absent (JNPT is an exception with three container terminals)
- Not much competition is being offered to international ports – for instance, for a ship call of a 3000 TEU vessel JNPT is four times more expensive as Colombo. This is comparable with the other major ports; hence Indian ports are not attractive for international shipment¹³
- The major strengths of Indian ports are high growth, availability of financial means and strategic locations. However, the weaknesses identified are old infrastructure, limited water depth, old and inefficient cargo handling systems, poor hinterland connection system, rigid institutional framework, high tariffs, poor quality of services and business attitude, overstaffing, lack of capacity and extension possibilities¹⁴.

Table 5.1 summarises the competition assessment of Port sector in India.

Table 5.1: Competition Assessment of Ports

S. No.	Factors Impeding Effective Competition	Present Status
1	Barriers to entry	<p>A port can be set up only after the approval of the Central or state government. For setting up a private port approval is required not only from the Ministry of Shipping and Ports but also from the Ministry of Finance, Home and Defence. The port should conform to the security and safety regulations of the Government of India. In respect of privatisation of existing ports, special dispensation is required under the Major Ports Act.</p> <p>These requirements are formidable obstacles and make entry a cumbersome process. The major ports particularly, suffer from a lack of competition because of institutionalised barriers to entry created by the government itself, resulting in both inadequate quality and scalability of quantities to meet the increase in demand. There are other aspects of regulation that constitute entry barriers. For example, the TAMP regulations prescribe tariff controls which put a big question mark on the commercial viability of ports.</p>
2	Price control	<p>The government regulate tariffs to facilitate reasonable tariffs to shippers. It restricts the freedom of private port operators to decide tariffs, leading to poor quality of service at ports.</p> <p>The government resources for port development are insufficient; raising tariff levels to meet the cost of development and capacity increase is critical for improving the port services.</p> <p>Shippers are denied efficient and customised service and have no option other than to accept bare minimum service which does not address their specific needs. Differential tariffs would help the needs of different shippers as some of them would be willing to pay more for better quality service.</p>
3	Freedom for entry and exit	<p>There is fair amount of freedom for entry and exit in both major and private ports. But entry is allowed only to experienced players, thus providing an unfair advantage to certain international players <i>vis-à-vis</i> local players.</p> <p>Corporate entities that have resources should be allowed to enter this sector freely without any restriction.</p>

Contd...

S. No.	Factors Impeding Effective Competition	Present Status
4	Barriers to raising finances	<p>At present major ports are not allowed to raise resources directly from the market through bonds, debentures and public issues of equity. Private ports have been successful in tapping resources from the capital market and are in a position to make huge investment in equity funds.</p> <p>The major and minor ports should be allowed to raise resources through bonds and public issue of equity. Corporatisation of ports, which would facilitate their fund raising capabilities, is yet to find favour with the government.</p>
5	Grants of exclusive rights to operate	<p>Cabotage law restricts the movement of foreign flag bearing vessels on the Indian coast for carriage of cargo, thereby impacting the development of ports for coastal cargo. In container terminals the restriction on operation of foreign flag bearing vessels for coastal movement of containers would impact consolidation of cargo at the transshipment ports visited by main line vessels.</p> <p>The right of first refusal given to Indian dredgers is anti-competitive and inhibits the growth of private port developers.</p>
6	Lack of competitive neutrality	<p>The differing policy frameworks with regard to minor and major ports affect competition adversely and impede the provision of a level playing field. Tariffs are regulated in major ports only and <i>suo motu</i> proposals from investors are allowed in certain minor ports.</p>
7	Limitations in provision	<p>There are supply-side constraints in general. Further, access to efficient port service is limited to places where large industries are located, thereby limiting access to industries located in economically backward areas and rural areas. Such limitation is also linked to the lack of availability of sufficient cargo in small places to justify establishment of full fledged ports. Therefore, the concept of Dry Ports has emerged which has led to setting up of a large number of ICDs and container freight stations CFS. Container Corporation of India has monopolistic control over movement by rail and allotment wagons to shippers.</p>
8	Potential for competition	<p>With recent privatisation and increased participation through the PPP model, FDI has increased substantially in the last five years. This might provide a base for healthy competition in the coming years.</p>

The intent of regulation should be to ensure efficient port services at a competitive cost. The shippers in India need to transport their cargo efficiently with minimal delay and cost. Shippers operating internationally do so with very thin margins, and prohibitive logistical costs should not act as a dampener on Indian international trading activity. The setting up of new ports and augmentation of capacity of existing ports requires clarity about the future cargo needs of the country given its demographic profile, targeted pace of economic growth and the needs of the industry based economy.

A strategic perspective is needed to drive public policy both at the Central and state government level. For the expansion of the ports, the entry barriers facing private institutions and PPPs need to be relaxed. The private players should be allowed freedom to fix their own tariffs and major ports should strive towards financial autonomy. However, regulation should ensure that private players in ports adhere to certain minimum standards in terms of infrastructure, cargo handling equipments, environmental standards, safety and security of cargo and provision of essential port auxiliary services. The Quality System under ISO 9000/14000 can be used as a mechanism to ensure uniform standards of efficiency across all ports. Regulation should also ensure a level playing field between public and private ports.

7. Recommendations

Tariff Fixation

As per the present regulation, the TAMP will fix and regulate port tariffs. Port and terminal operators should not exceed the ceiling tariffs established by the body. The government feels that this will increase transparency and provide a level playing field for investors. However, from the private operator's perspective, this is rather discouraging and indicative of continued bureaucratic meddling. If private interests are allowed to build and operate a terminal, there is no reason to preclude them from pricing commercially. If indeed a governmental body is to be the ultimate arbiter of port tariffs, would not a tariff with a zone of rate-making freedom on either side be more conducive for entrepreneurs?

Recently, the TAMP has issued guidelines on upfront tariff setting for PPP projects at major ports. These new guidelines issued by TAMP in 2008 stipulate that¹⁵:

- i. Tariff caps for the handling of various commodities or provision of various services by private operators licensed by Major Port Trusts should be set upfront

- ii. Tariff caps once fixed for a major port for handling/providing stipulated commodities/services would apply to all terminals bid out subsequently in the same port during the next five years
- iii. Port trusts should mention tariff caps in the bid document
- iv. Normative cost-based approach allowing a reasonable return on capital employed of 16 percent in operating cost estimates should be followed
- v. The upfront tariff should only be a ceiling level and would be adjusted once in five years
- vi. While reviewing tariffs, norms relating to performance would be pegged at progressively higher levels with the passage of time and would take into account technological developments
- vii. Tariff caps would be indexed to inflation but only to the extent of 60 percent of the variation in wholesale price index (WPI) occurring in the relevant year

The guidelines also give a mandate to TAMP to carry out enquiries into allegations of violation of these guidelines. Whether the TAMP will be in a position to monitor the performance of private operators and carry out fair and impartial enquiries is highly doubtful. There is a necessity to de-link the regulatory system (TAMP) from government intervention. The government should limit its role to policy making and be in a position to navigate the country's major ports through the choppy waters of international maritime trade and their cyclical nature. A sleek organisation with a well-defined mandate and a regulator enabled by a clear cut framework of regulation will suit the needs of a growing industry which has to meet the competition of growing major ports in neighbouring countries.

Allowing ports to engage in tariff competition by specifying only tariff caps is a step in the right direction and will promote efficiency. Cabotage laws have also been relaxed to give a boost to cruise shipping. A new dredging policy has also been announced with the intention of giving a boost to Indian dredging companies.

Controlling the Rising Cost of Port Transportation

India's exporters and importers have been facing a significant hike in costs of transporting goods from factories and warehouses to ports and back. A study carried out by the Federation of Indian Export Organisations (FIEO) show that the cost of moving a cargo container by road from north India to JNP in Navi Mumbai, outside Mumbai on the west coast, has gone up by 12-15 percent recently after fleet owners passed on the increase in fuel prices to their clients. Some 60 percent of India's export movements are on this route¹⁶.

Container train operators have also hiked haulage charges on the transport of cargo containers by 15-20 percent. The increased haulage charges will be passed on to the shippers. Haulage charges set by the Railway Ministry become the base rate for container train operators, who add their own capital and operating costs to arrive at the rates to be charged from exporters and importers. These operators pay haulage charges to the ministry for using the track, locomotives, signalling infrastructure and staff of the railways.

Box 5.3: Comparison of the Port Costs of Major Ports in the OECD Region

In terms of the total port costs based on nominal exchange rates, the 3,000 TEU class hypothetical container ship costs least in the port of Manila, among 21 ports included in the analysis. The port of Yokohama has the highest cost at six times that of Manila in nominal US\$. The costs of the ports of Hong Kong, Singapore, Sydney and Yangon are more than three times as high as the port of Manila.

When PPP rates are applied, however, the tariff at Osaka port is the lowest. The port of Yangon is ranked as the highest cost port at PPP while it is considered as one of the lowest cost ports in nominal US\$. In most developing country ports in this region, port tariff levels based on PPP rates are relatively higher than those based on nominal exchange rates. This implies that the ports of the developing countries levy higher port tariff levels than those that would be appropriate under their price levels.

The inland transportation costs have always been high in India in comparison to global standards. The cost of transporting a cargo container over 1 km in India is 50 percent higher than that in the US. The inland transportation costs in India are, at times, more than the ocean freight. For example, the cost of moving a container from northern India to Mumbai is sometimes more than the cost of shipping a cargo container by sea from Mumbai to Dubai. The increase in inland transportation and port handling costs have added to the already high transaction costs in India. The country spends about US\$1,148 for handling an import cargo container and US\$820 on an export container. In comparison, Singapore spends US\$367 on an import container while China spends US\$390 on an export container. Because of the high transaction costs, small manufacturers are not able to penetrate the global market¹⁷.

Setting up of Hub Ports

Facilitation of operation of privately operated container terminals in Indian ports is an exceptional accomplishment by Indian standards. After years of deliberation and bureaucratic interference, the Indian port sector has accomplished a major psychological breakthrough. What is even more noteworthy is the fact that the whole process was truly transparent, very non-controversial, and completed almost on time.

However, there are some aspects of the bidding process and Indian port planning that need fine tuning. Currently, Indian ports cater mainly to transshipment and coastal movement. Most of the Indian cargo is transhipped through hub ports like Colombo, Singapore and Salalah. This results in an increase in the freight of Indian cargo. To resolve this problem, the government should set up hub ports. The government is already planning to set up two hub ports, one each on the east coast at Chennai and on the west coast at JNP in Mumbai. Further, it is proposed to develop an international container transshipment terminal at Cochin Port on BOT basis.

Reversion of Port Assets

The privatisation guidelines issued by the Government of India stipulate that at the end of the BOT period, all assets will revert to the port free of cost. The port bid documents comply with this mandate. However, an operator nearing the end of the BOT period does not have any incentive to maintain all the equipments and hand it over in good condition. At this juncture, the room for litigation appears very broad and inviting. Future bid documents should clarify this particular aspect so that there is less ambiguity. Furthermore, lenders would also want clarification as to who would own these assets during the BOT period prior to issuing loans.

One interesting aspect of the JNP BOT outcome is that a private terminal will be in operation right next to the present terminal operated by the Port Trust. This might enhance the performance of the present terminal through symbiotic relationships and adoption of better practices, particularly with respect to labour.

Ensuring Independence

Regulatory institutions should be independent from direct intervention of the government in respect of tariff policy formulation, appointment of members of the regulatory body and enforcement of regulations. Note that through the Major Port Trusts Act, 1963 the government has retained control in respect of appointment and removal of regulatory authorities.

The appointment, removal and terms and conditions of employment of officers of TAMP is controlled by the government, thereby affecting the autonomy of TAMP. The TAMP should be given independence in terms of its service conditions to ensure that it functions in a free and fair manner.

Effective Regulation to Optimise Efficiency

In India, private sector participation in port operation has reached a significant magnitude during the last decade. This has been driven by the tremendous growth in the volume of exports and imports as well as broader trends within the transport sector. There is a larger role being played by the public sector ports in collaboration with the private sector in providing infrastructure services. In India, the reform processes initiated in the last decade have been able to attract significant private capital investment to refurbish infrastructure assets and modernise cargo handling equipment.

Under private management, ports have significantly improved performance in terms of service quality and reduction of handling costs. Is such a trend of increase in efficiency, driven by demand and the use of competitive bidding for concession contracts in the short run, sustainable in the long run? The answer will depend heavily on the ability of port authorities to stimulate effective intra-port competition.

The development of minor and Greenfield ports is also likely to change the canvas of the competition scenario. The emergence of multi-modal transport networks with a host of ICDs and CFS being set up across the length and breadth of the country will stimulate competition. These issues will gain relevance and thus the need for regional and multi-modal assessment of competitive structures will require port authorities to coordinate on a broader scale.

Furthermore, increased globalisation of the port, terminal and shipping industry means that new competition often appears which require governments and public port authorities to monitor the market across national boundaries. In such a context, effective public regulation of the sector will become critical for optimising the efficiency of new partnerships developing in this sector.

One thing that clearly emerges is that the port sector needs regulation to ensure efficient utilisation of scarce resources and balanced development of infrastructure services characterised by efficient linkages amongst various segments of transport. Therefore, an independent regulatory authority for the port sector is needed in India.

While analysing the different regulatory options being implemented worldwide, an important lesson that emerges is that the regulatory authority should be vested with powers to handle complex issues relating to technical and commercial aspects of regulation. More specifically, there exist suitable legal frameworks under which separation between public statutory duties and commercial market operations can be carried out appropriately, while ensuring economic, environmental and social sustainability. Such separation must accompany adequate market responsive regulation and general good governance.

The World Bank port specialist Marc H Juhel¹⁸ in his paper presented at the Singapore Summit 2000 has made two recommendations for regulatory frameworks:

Transparency in Regulatory Framework for Port and Terminal Operations
Market maturity makes it even more necessary to design and implement transparent and effective regulatory framework to ensure a proper balance between long-term public responsibilities and normal short-term business objectives. The effectiveness and credibility of public regulation, both technical (safety, environmental protection) and economic (pricing, competition, monopolies), will be more and more critical to secure optimal participation of the private sector in investments and operations in ports worldwide.

Competition Rules

Monitoring competition conditions with a view to opening market access as broadly as possible while safeguarding critical public interest will remain a prime responsibility of public port authorities. As a consequence of (i) the spreading of port concessions in specific traffic niches like container terminal operations, and (ii) the relatively few number of international professional operators and shipping lines in the market to date, a new form of competition limitation may develop along regional coastlines, crossing country boundaries. It is possible that in the short run, one or two terminal operators may control a string of terminals on a given range, therefore establishing dominance at the regional level.

The appropriate answer to this situation could come from bodies specialising in issues relating to regional economic cooperation, which should therefore be vested with specific authority regarding regional competition in transport services. However, following the emergence of newcomers in the terminal operation, the chances are that this risk will be mitigated somewhat by the increase in competition provided by these new players.

In India, we need to have the TAMP redefined on the mentioned lines and given powers akin to those vested on other regulatory authorities, such as the Securities and Exchange Board of India (SEBI), Telecom Regulatory Authority of India (TRAI) and Insurance Regulatory & Development Authority (IRDA) of India. The port regulator should have wide reach and control over both major and minor ports as well as other players who form part of the multi-modal transport chain. There is a need to have a unified authority to regulate all major and minor ports in the coastal region of the country, and also the dry ports such as ICDs and CFS for efficient multimodal transportation.

9. Conclusion

Looking at the recent growth of the Indian economy, with the very recent exception of the past year, it is expected that enormous amounts of cargo will be shipped through Indian ports in the future. The port sector in India has been witnessing a tremendous growth in recent times and the perspective plan of the government calls for a doubling of cargo handling capacity at the country's ports by 2012. The domestic port sector has witnessed some significant developments in the last decade, especially after it was opened up for private participation, relating to the entry of global terminal operators and shipping lines. With the government moving ahead with reforms, it is expected that this sector will see further development in the coming years.

If we look at developments from the user's perspective, the port sector has come a long way, but the privatisation process needs to gather momentum to further enhance efficiency. The Indian experience chronicles the successes of many private operators. This indicates that privatisation, if handled properly, can work. The Chennai terminal is an example of successful privatisation which has significantly reduced the cargo handling cost.

In order to promote healthy competition which is necessary for the long-term growth of this sector, the capacity growth of ports should go hand in hand with developments and requirements stemming from international trade. Hinterland connectivity plays a major role and unless road and rail infrastructure develop in sync with ports, the same may not be of any use to shippers. Container Corporation of India (CONCOR) does not seem to have sufficient wagons and there is no option but to allow the private sector to operate cargo trains to meet the demand of shippers. There is a need for dedicated rail lines for freight only.

Tariff regulation has been a key policy instrument for defining competition so far. The TAMP orders and guidelines, however, only

pertain to major ports while the competitive framework of port business now encompasses a broader arena of activities comprising minor and intermediate ports. Competition and its enforcement, therefore, have to be much broader in scope.

With regard to facilities, India also definitely needs a hub port, as shipping lines mainly prefer to use ports, which connect their containers from mainline to feeders and vice-versa in very little time. A number of hub ports have emerged around the world; India is yet to achieve this dream. The absence of a hub port means that every container leaving an Indian port is delayed twice – once on the feeder voyage from India to the hub port and the second time at the hub port while it waits for the mainline ship to call. This has been resulting in delay and extra costs. The idea of JNPT becoming a hub port has been under discussion for quite some time but no concrete effort seems to have been made in that direction.

The government should play the role of a landlord and privatise all facilities offered in ports, including pilotage and towage. There are latent capacities within ports, which can be utilised so that more expenditure in building new jetties is not incurred and environmental problems are not created.

Above all is the need for regulatory independence and a broad mandate. The regulatory authority needs to be armed with powers to implement and enforce its decisions. Thus, it is necessary to empower TAMP with the authority to enforce and implement its orders. TAMP should be remodelled on the lines of regulators in other sectors.

Endnotes

- 1 Interview with APVN Sharma, Secretary for the Department of Shipping in the Ministry of Shipping, Road Transport and Highways (April, 2008) extracted from <http://www.portworld.com/news/2008/04/71284>
- 2 <http://www.tariffauthority.gov.in>
- 3 TEU represents the size of a standard intermodal shipping container
- 4 Hubbing is a system of feeding cargo to and from a large port known as a hub. A hub port attracts trans-shipments cargo to and from other smaller ports, as well as inland locations (www.portbris.com.au/aboutport/glossary)
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- 6 Government of India, Ministry of Surface Transport, Guidelines to be followed by Major Port Trusts for Private Sector Participation (January, 2008) extracted from <http://www.shipping.nic.in>
- 7 Jain P (March 11, 1997), "Policy Initiatives by Central Government in Major Ports", CII Conference on Ports and Roads Investment, Hotel Oberoi, New Delhi
- 8 Joshi, A (1995), "Foreword", Maritime Policy and Management, Indian Port Privatisation Special Edition
- 9 http://teachmefinance.com/Financial_Terms/lighterage.html
- 10 Yoder, R A, P L Borkholder and B D Friesen (1991), "Privatisation and Development: The Empirical Evidence", The Journal of Developing Areas, 25(3):425-434
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- 12 National Maritime Development Programme (March, 2006) extracted from <http://www.shipping.nic.in/writereaddata/linkimages/NMDP2134686903.pdf>
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- 14 Indian Port Association Report (2008) extracted from <http://www.ipa.nic.in/priv.htm>
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- 17 Manoj P (2009), "Rising transportation and Port costs start to hurt India's Trade", Livemint.com, The Wall Street Journal
- 18 Supra Note 5

Regulation and Competition in Civil Aviation

Introduction

In this chapter we look at the civil aviation sector where the regulatory system is still at a very rudimentary stage. Evaluation of the needs and present regulation of this sector thus assumes great importance as recommendations might be very useful in influencing the content of future regulation, implementation modalities and outcomes. This is precisely the objective of this paper which uses generation of competition and consistency with social welfare goals as parameters in its critique of the state of regulation in this sector.

The airlines sector has witnessed important changes in the recent past. This has primarily happened because of deregulation of the sector in 1994: the competition generated from the entry of private airlines into this sector has been associated with spectacular growth. As a result, the number of airlines operating in India grew to 15 in 2008¹.

There were 11 private airlines at the time of the inception of the sector, even though the demand for air travel was insignificant compared to what it is today. Just before the nationalisation of the sector in 1953, there were nine private airline carriers in India. The primary reason for nationalisation in 1953 was the chaotic civil aviation environment around that time with the number of airlines exceeding the sustainable number².

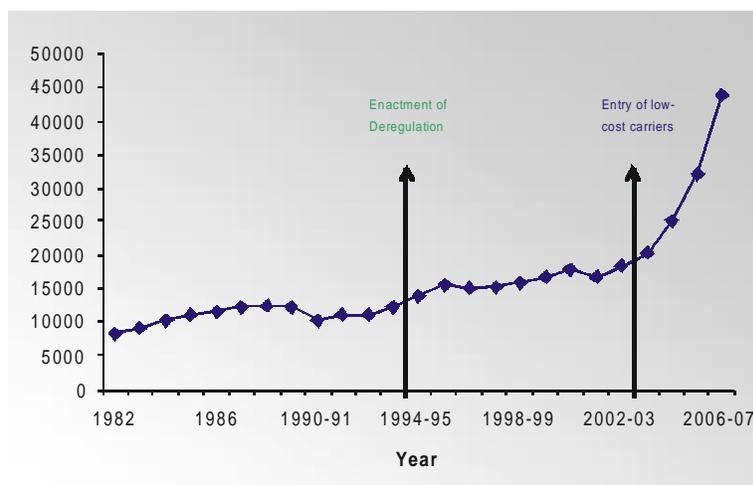
From 1953 onwards, commercial airlines, for all practical purposes, remained nationalised for 40 years until the enactment of the Air Corporation (Transfer of Undertaking and Repeal) Act, in 1994. The primary motive behind such deregulation is not clear: decline in profitability of Air India and Indian Airlines owing to organisational and managerial inefficiencies could be one factor. The government's stand seems to be that it was initiated to provide more choice and better quality of service – objectives that were certainly achieved³.

The rest of the paper is structured as follows. Part 1 examines the political economy underlying the functioning of this sector and the resulting performance and on the basis of this evaluation lists several recommendations for changes in the regulatory and policy environment facing this sector. The large number of airlines in the sector at present, as in 1953, raises questions of sustainability. This calls for an examination of variables like cost efficiency, price and profitability. Section 2 examines compatibility of the current regulatory environment with generation of competition in this sector, i.e. a broad competition assessment is undertaken. Section 3 examines implementation modalities, especially the composition of the proposed regulatory body for the sector. Finally, Section 4 makes recommendations for regulatory improvement. Section 5 concludes.

1. Performance under Deregulation

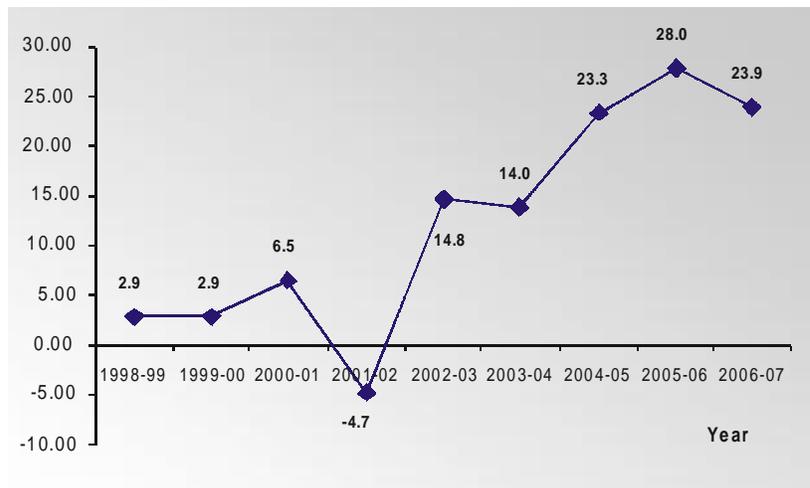
A quick look at the number of passengers availing domestic and international air travel facilities run by Indian operators suggests that customer choices have increased significantly since deregulation (See Figure 6.1). To form a more informed opinion though, the trends in passenger and cargo service and prices are examined in detail.

Figure 6.1: No. of Passengers (000)



Source: Derived from information provided by Indian Air Transport Statistics (Various issues), Directorate General of Civil Aviation (DGCA), Government of India (GoI), New Delhi

Figure 6.2: Growth in Passenger-Miles 1998-99 to 2006-07



Source: Derived from information provided by Indian Air Transport Statistics (Various issues), DGCA, GoI, New Delhi

With the deregulation of the airlines industry in 1994 and its opening up to private competition – a process that gathered momentum after the late 90s – the sector has expanded significantly (see Figure 6.2). Private entry into Indian civil aviation started in 1995, but significant activity really started around 2002-03⁴.

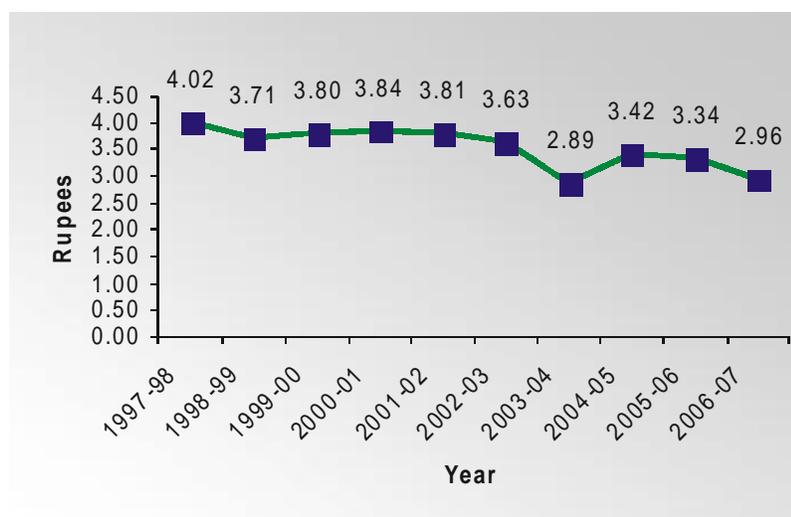
While in the closing years of the 20th century, the growth in passenger service was less than three percent per year, over the period 2002-03 to 2006-07 it increased to about 21 percent per year on average. In the eight years, i.e. 1997-98 to 2006-07, the annual number of passenger miles of travel provided by this sector has almost tripled from 23251 to 63874 million.

Impressive gains were also registered in cargo service⁵. Thus, in the period, 1998-2002 air cargo carried by all domestic airline operators increased from 137 to 207 thousand tonnes – a percentage increase of 52 percent. By 2006 this variable touched 322 thousand tonnes. Thus, the absolute increase in the period 2002-06 exceeded in the previous four-year period by 45 thousand tonnes (115 as against 70 thousand tonnes). Despite higher base levels, the percentage increase in the second period was higher – 55 as against 52 percent.

Thus, competition facilitated by deregulation reforms has shown returns in terms of the scale of services provided by this sector. Correspondingly,

it has also led to a decline in the price of service. A look at the operating revenue per passenger kilometre (which is a reasonable proxy for prices) confirms that in real terms it has decreased 26 percent (see Figure 6.3) in the period, 1997-98 to 2006-07. This decline was accompanied by an increase of over 58 percent in real per capita net national product and has happened despite fuel costs rising 2.5 times during that period. Price decline and increase in per capita income have ensured a huge increase in demand for air travel which has, however, very recently been dealt with a blow by the financial meltdown.

Figure 6.3: Operating Revenue Per Revenue Passenger KM Performed in 1997-98 Prices



Source: Derived from information provided by Indian Air Transport Statistics (Various issues), DGCA, GoI, New Delhi

The Indian experience of benefits from deregulation (i.e. opening up to competition) in the airlines sector has similarities with the much longer experience of the US (1978-present): airlines have become more efficient and air travel has become cheaper with more choices for travellers. Moreover, competition has implied that entrepreneurs have been making efforts to maintain low prices for customers even in the presence of fluctuations in costs and therefore in profits.

In spite of the benefits from competition in terms of magnitude of service and price decline, in certain areas deregulation reforms have failed to fulfil their initial promise. A closer look at the domestic sector reveals that the number of routes has declined considerably in the 1989-2000

period (32 percent), even as the number of seats supplied weekly has increased from 332,840 to 484,393 (See Williams, 2002). This is an indication that while competition has intensified on several (perhaps more viable) routes this has been achieved at the expense of travel along other routes. In other words, private competition has manifested itself only on select routes, probably those with high and assured profitability.

To illustrate, over the period, 2002-03 to 2006-07, while 32 airports registered growth in passenger counts in excess of 10 percent per annum, 36 airports recorded negative growth. This is perhaps evidence that liberalisation has given greater freedom to carriers to respond to the sector-specific market dynamics⁶, but it is also indirect evidence that despite the impressive growth in domestic flying, price-based competition has not been adequately robust.

Moreover, it can be argued that deregulation has not realised its full potential in terms of the magnitude of price competition. Casual empiricism indicates that full service airlines have found it convenient to price their service just barely below the prices typically set by national carriers or provide superior services for a comparable price. This has been enough to increase their market shares.

Private airlines have been able to take it easy and follow the mentioned strategy because of interference by the government entities (politicians and bureaucrats) in the operations of national carriers. The expected dynamics of competition resulting in efficiency enhancement, cost cutting and therefore price reductions by all participants have only been partially observed in India because of lack of competitive responses from national to private carriers. The fleets of these airlines have not been renewed or expanded due to such interference⁷.

The incomplete fulfilment of promise by airline deregulation might also be indicated by the fact that costs of domestic carriers are far above international levels. While the private carrier, Jet Airways has done better than other Indian airlines, its unit operation cost has been still almost three times that of Singapore Airlines, i.e. 27.1 US cents (per unit of available tonne km)⁸. Even compared to other airlines in Asia like Air China and Sri Lankan Airlines, per unit cost for Jet Airways has been almost twice as high. For the national carrier, Indian Airlines, the contrast is starker: its cost is three and a half times that of Singapore Airlines, and about two and a half times that of Air China and Sri Lankan Airlines.

However, whether higher costs are indicative of lower efficiency is debatable and is an important research question. As explained below, the substantially higher cost of ATF in India could account for a difference of around 35 percent in unit operation costs. However, this is only a partial explanation of the 100-250 percent difference in unit operation costs.

However, there are yet other factors not related to efficiency which might explain the difference in costs. Very high charges by the airport authority might be one such factor. The significance of this factor is indicated by the fact that taxes account for 55-65 percent of the fares that customers pay in India for air travel whereas in the case of other countries this percentage is usually in the rough range of 25-50 percent⁹.

However, even if we account for both difference in taxation (producing a difference in operation costs of around 30 percent) as well as that in the price of air turbine fuel (another 30 percent) this accounts for a total difference of 65 percent. Thus, difference in fare of around 35-135 percentage points (that too if the domestic airline used for comparison is the relatively efficient Jet Airways) is still unaccounted for.

A more rigorous examination of price and cost differentials between Indian domestic carriers and foreign airlines is called for. However, back of the envelope calculations do indicate inefficiency in our domestic airlines, which in turn, can be attributed to the imperfect nature of competition.

2. Some Important Aspects of Competition Assessment

Fuel Costs and Government's Role

There are aspects of government involvement, other than those already mentioned, that impact the sector's competitiveness across the board. First, taxes that are levied on ATF by states are significantly higher than those levied in the rest of the world (25 percent on average compared to four percent internationally). Further, the supply of ATF is controlled predominantly by government-owned oil companies, which have priced it, even without the taxes, at significantly above international levels. The ATF price in India in April 2007 at Rs 37,800 per kilolitre was around 70 percent higher than the international ATF price at Rs 21,800 per kilolitre¹⁰.

After the dismantling of the 'Administered Price Mechanism' (APM) in April 2001, the price of ATF in India has been based on "International Import Parity Prices" and directly linked to the benchmark of Platt's

publication of FOB Arabian Gulf ATF prices (AG). These prices do not reflect the actual cost of producing ATF in India. However, there is a considerable markup over international prices because of an *ad valorem* customs duty of 10 percent, domestic transportation costs and related charges, excise duty of 8.24 percent (including *cess*), sales tax averaging around 25 percent levied by state governments, the marketing margin of oil marketing companies and throughout charges paid to the Airports authority¹¹.

ATF is still virtually a state monopoly: the formula for fixing the price of ATF has been determined on the basis of mutual agreement among the three state-owned oil companies. Private companies such as *Reliance* and *Essar* have been granted marketing rights by the government but these have till now been rendered ineffective because the companies have not been granted space by the Airport Authority to supply ATF¹².

In other words, lack of competition in the supply of ATF because of the government monopoly has resulted in high prices of ATF. This has led to a hike in airfares and depressed consumer benefits from the airline sector.

To illustrate, fuel costs typically comprise 35 percent of overall operational expenses. Of late its share in operational expenses has been as high as 50 percent. Given that Indian ATF price is around 73 percent higher than the international price, this factor alone would imply an excess of unit operating cost for domestic Indian carriers of 35 percentage points over that for carriers operating outside India. Therefore, streamlining these costs through necessary policy changes (including in other sectors) can bring about significant decreases in overall cost¹³.

However, there have been encouraging developments which hold promise of bringing about a reduction in ATF prices. Recently, Reliance has been granted land for setting up aviation fuelling stations at 25 airports and already started work in establishing these in some airports. Shell-MRPL (Mangalore Refinery and Petrochemicals Limited) has entered into a contract with Jet Airways to supply ATF to it at Bangalore and Hyderabad Airports¹⁴. These developments, when replicated on a larger scale promise to make ATF pricing more competitive, i.e. competition would possibly result in the trimming of marketing margins. However, competition alone might not result in prices of ATF within India coming down to international levels – as indicated above, a large part of this excess could be accounted for by the plethora of taxes imposed on ATF in India.

Open Skies and FDI in Domestic Civil Aviation

The government has recently embraced an open sky policy which provides for open routes, capacities, frequencies, designations, and pricing, as well as opportunities for cooperative marketing arrangements, including bilateral code sharing with domestic Indian carriers. It has also announced some relaxation in constraints on foreign investment in the sector. FDI is allowed in private domestic Indian carriers to the extent of 49 percent.

Further, the government has recently allowed private domestic carriers to fly to international destinations as well (the gulf countries were added to the list only recently). Foreign carriers, are however, not allowed in the domestic circuits, mainly because of safety concerns. Under the current policy, if a foreign airline operates in India, the responsibility to ensure safety of the aircraft vests with the country in which it is registered, and is not under the purview of the Director General of Civil Aviation (DGCA).

Moreover, even investment by foreign airlines in the Indian civil aviation sector is prohibited. Thus, foreign airline involvement in this sector, either directly through foreign carriers or through investment¹⁵, has not been allowed. This constitutes a policy dilemma for the future. Participation by foreign airlines is obviously good for competition in the sector. It might also result in domestic airlines imbibing their best practices. But these airlines getting swallowed up by foreign airlines, either through competition or acquisitions, might be a consideration worth taking into account.

It is interesting that in the US domestic airlines sector too, there were fears of safety of air travel being compromised by deregulation. Yet evidence from the US in the last 30 years is to the contrary; safety has actually increased. Moreover, it has been realised that the gains from more intensive competition, resulting from domestic participation by international carriers, should not be underestimated.

Civil Aviation Infrastructure

Airports in Mumbai and Delhi are already undergoing significant transformation to provide better service to passengers. These airports are being developed through joint-venture between private consortiums and the Airport Authority of India (AAI)¹⁶. The Kolkata and Chennai airports will be upgraded to be at par with Mumbai and Delhi. While Kolkata is being developed to handle 20 million passengers per annum, Chennai's airport is being planned to handle 13 million passengers¹⁷.

The AAI has also already started work on developing 35 non-metro airports in the country. Greenfield airports of international standards have been functional in Hyderabad and Bangalore from early 2008 and others are also in the pipeline. Despite these developments, there are issues with how infrastructure development is being undertaken, which are discussed later along with remedial recommendations.

3. Implementation Modalities in Regulation

A quick look at the proposed regulatory framework for the airlines sector is in order. The framework for the airlines industry is in a state of flux, and still in the incubator¹⁸. Since the government had strongly controlled the sector until 1994, an independent regulatory framework was non-existent till then.

Even with the advent of private players, the sector's fate has been influenced significantly by government involvement. The setting up of an independent regulatory body, i.e. Airport Economic Regulatory Authority (AERA) has been completed with the passing of the AERA bill. The draft Bill to create the AERA was prepared as far back as 2005. The delay in its enactment has been quite frustrating. In its enacted form, the key concern pertaining to independence from government interference still remains.

A quick look at the AERA Act raises concern about the regulatory authority's independence from government interference. Section 5(1) of the Act directly includes four government servants and one expert nominated by the Ministry of Civil Aviation in the five-member selection committee for the appointment of AERA's members. Even with respect to the members of the regulatory body, it appears that there may be a bias in favour of government servants. To illustrate, another section of the Act states,

'Provided that a person who is or has been in the service of Government shall not be appointed as a Member unless such person has held the post of Secretary or Additional Secretary to the Government of India or any equivalent post in the Central or State Government for a total period of not less than three years.....'

While this rendering does not exclude the possibility of non-governmental experts being chosen as members, the explicit definition of membership from government and its restriction to people from the higher echelons in the bureaucratic hierarchy raises the spectre of bureaucratic capture. To confound matters, the Act further provides the central government significant powers to remove AERA's members from office.

It is not desirable that the Chairperson or other members of AERA be completely immune to inputs from the government. But, the nature of the regulatory body as indicated above suggests that AERA is likely to be strongly influenced by the government¹⁹. This potentially compromises the independence of the AERA²⁰. A better approach would be to require at least one member in the regulatory body to have an adequate background in aviation, economics, law, commerce or consumer affairs and to be *not* from the government sector.

Also, even with respect to the selection committee, some (perhaps two out of five) members ought to have professional but exclusively (or predominantly) non-governmental experience in aviation, economics, law, commerce or consumer affairs. With the ever increasing role of private airlines in the domestic aviation sector, AERA ought to have some non-governmental presence in it.

As tariff will be under the purview of AERA, one of its first initiatives should be to rigorously study the implications of the policy of requiring routes with high traffic density to cross subsidise routes with low traffic density. A fiscal approach to promoting civil aviation in less viable sectors is generally a better way to go, but to the extent that some cross-subsidisation may be necessary, AERA must ensure that the adverse impact on economic efficiency is minimal²¹. Here some interface with the government to determine the viability and nature of cross subsidy (which is also a policy tool) for facilitating air travel in sectors offering low or negative return to carriers might be advisable.

Also, even though the CCI will have broad purview over market power issues, it may be more effective for AERA to adjudicate market power concerns, given the specialised nature of aviation and the informational advantage that the sector's regulators are expected to have.

4. Recommendations for Regulatory Improvement

A comprehensive policy framework is needed that stimulates cost cutting, price reducing and quality enhancing competition through an integrated coverage of aviation and airport infrastructure issues, especially those related to financing, price control and taxation. Recommendations related to individual attributes of this framework follow²²:

*Cost Rationalisation*²³: There is a need to initiate cost rationalisation for all carriers through benchmarking (using global standards) of productivity measures like number of personnel per aircraft, per unit cost and common measures of load factors. A related recommendation is

that the regulator should link tariffs to normative rather than actual costs.

Rationalising the Pricing of ATF and Passenger Fares: First, sales tax on ATF should be reduced to four percent across all states from the current average of 25 percent. Import duties should also be reduced. Second, parity between international and domestic operators should be introduced by rationalising add-ons towards marketing margins and contingencies on Refinery Transfer Price. Further, in order to enhance efficiency, reduce costs and thus increase competitiveness, domestic operators should be allowed to import processed ATF directly. The discontinuation of the policy of subsidising public sector refineries and related stimulation of domestic private supply of ATF is also needed.

It is helpful to quickly examine the rate structure generally in place for domestic air travel by using an example. A roundtrip ticket for the Delhi-Mumbai route from Kingfisher Airlines (here we are referring to the Red Category of Kingfisher or erstwhile Air Deccan) in October, 2008 had a base price of Rs 4000, but additionally Rs 6,200 for fuel surcharge, Rs 300 for air traffic congestion fee, and a passenger service fee of Rs 450²⁴. Fuel surcharge, which effectively makes no difference whether it is quoted individually or not, is essentially about a key input of airlines operation, i.e. ATF (some airlines in the world do not separately charge for fuel). To the extent costs associated with fuel are reduced to world standards by rationalising ATF prices, a consequential reduction in airfares can trigger significant growth in traffic.

Allow Entry of Foreign Carriers in the Domestic Sector: International carriers with impeccable safety record could be allowed to fly domestically in a bid to enhance competition. Removal or relaxation of the FDI limit of 49 percent can also be recommended with similar objectives in mind. These recommendations are however, subject to the reservations expressed earlier and therefore call for further debate.

Airport Infrastructure Development: A multi-airport approach should be encouraged for urban areas²⁵. Promoting Greenfield airports by closing existing airports for service is counter to the essence of the liberalisation of the sector. Multi-airport systems in urban locations are conducive to development of low cost carriers, as demonstrated worldwide. In such a scenario, airports do not have a monopoly over infrastructure services needed by airlines; the competition among proximate airports to cater to airlines can bring down costs for airlines and prices for passengers.

The “minimum 150 km separation” discourages natural growth of the domestic civil aviation sector, especially in high density regions and

inhibits competition. States should have the flexibility in deciding the vehicle of revenue sharing, bid-assessment and location. This would help states to develop vehicles that satisfy their unique requirements.

Public Participation: Some public participation is needed in civil aviation because of welfare and equity considerations and the paucity of potential private investment. But the functioning of the public sector in civil aviation has not been up to the mark and therefore definite structural changes are needed such as change in incentives, unbundling, public-private partnerships (PPPs) in certain elements of the unbundled production process, changes in hierarchy and appointment practices etc.

5. Conclusion

The civil aviation sector is in a phase of transition as well as turmoil. Changes began taking place from 1994 onwards when deregulation took place and private entry into this sector was allowed. Gradually many other changes are being rung in – private participation in the supply of ATF has started but is still in its infancy and an independent regulator has just emerged. This is just as well as this sector has been affected badly both by a rapid increase in the price of crude oil – from which there is now a temporary respite – as well as a decline in demand due to the recent recession.

Competition has increased in this sector with the termination of public monopoly. Yet there are many barriers to competition in this sector – public monopoly in fuel supply and the artificially sustained geographical monopoly of airports are good examples. Such competitive barriers still threaten to condemn air transport to the status of an elitist mode of travel and should be eliminated. The other cause for worry is the constitution of the AERA which is such that it might not be sufficiently independent of the government and immune from the risk of political capture.

Endnotes

- 1 Source: <http://dgca.nic.in/operator/sch-ind.htm>; site last visited on August 26, 2008.
- 2 See “Study of the Indian Aviation Industry”, by Ashish Dhawan, Nidhi Mishra, Nithya R, Payal Yadav, Rajesh B, Siddharth Dahiya, Siddhartha Butalia, <http://www.foolonahill.com/mbaaviation.html> and “Aviation Industry in India – Challenges for the low cost carriers”, by Shahs Sharma, LL.M., American University, Washington College of Law, Washington DC, May 2007
- 3 Report of the Committee for a Road Map for the Civil Aviation Sector
- 4 While private airlines started increasing their share in the Indian market quite substantially very early (for example private airlines had a 35 percent share in the beginning of 1995), the growth in passenger-miles picked up substantially only starting 2002-03.
- 5 Indian Airport Transport Statistics, 2006-07, Directorate General of Civil Aviation, Government of India
- 6 The present civil aviation policy obligates carriers to devote 10 percent of their capacity to service in loss making sectors. It also requires that Category II sectors (medium traffic density) must be offered a level of service that is at least 50 percent of the capacity being offered in Category I sectors (high traffic density). These limitations impact the viability of airlines adversely
- 7 See for example, William, George, “Airline Competition: Deregulation’s Mixed Legacy”, 2002. “[D]ecisions on such issues as fleet replacement were monumentally time consuming and often decided upon by Ministers on the basis of non-technical and non-commercial factors”. Also see Goyal, Ashima, “Governance in India’s Public transport Systems: Comparing Indian Railways and Airlines”, WP-2007-019, Indira Gandhi Institute of Development Research, December 2007
- 8 Source: ICAO data
- 9 Based on prices of airline tickets quoted on <http://www.cleartrip.com/> showing breakup into ‘fare’ and ‘tax’
- 10 Federation of Indian Airlines, “Improving the Financial Health of India’s Airline Industry through a reduction in the cost of ATF in India”, http://www.fiaindia.in/Cost_of_ATF.htm
- 11 *Ibid*
- 12 *Ibid*
- 13 See “Taxes causing ‘turbulence’ for domestic airlines companies”, by D Murali and Kumar Shankar Roy, Business Line, June 21, 2008
- 14 Economic Times, June 16, 2008, “Jet ties up with Shell-MRPL for supply of ATF”, http://www1.economictimes.indiatimes.com/News/News_By_Industry/Transportation/Airlines__Aviation/Jet_ties_up_with_Shell-MRPL_for_supply_of_ATF_/articleshow/3134712.cms
- 15 Financial Express, February 20, 2009, “Government Looking at Plans to Allow FDI in Aviation: Patel”
- 16 See Economic Survey 2006-07, Page 196
- 17 See Economic Survey of India 2007-08, Page 224
- 18 As far as safety is concerned, the DGCA has regulated the sector for a long time now, and given its wealth of experience, it is perhaps appropriate that safety continues be the purview of DGCA. My focus here is on economic

regulation, and therefore I mainly concentrate on regulatory aspects that are planned to be under the purview of the AERA

- 19 There are other aspects of the bill too that further highlight the vulnerability of AERA to government's influence. For example, 42(3) states that *'The decision of the Central Government whether a question is one of policy or not shall be final'*. Also, the bill provides for superseding of AERA by the government, though not indefinitely
- 20 The comment also applies to the AERA Appellate Tribunal
- 21 "Cross Subsidies in Electricity Tariff: Evidence from India", Pradip Chattopadhyay, *Energy Policy*, 2004, Vol. 32/5 pp 673-684. doi:10.1016/S0301-4215(02)00332-4
- 22 UK Competition Commission report on enquiry into the civil aviation sector can be consulted for reference
- 23 As the national airlines met 22.15 percent of the demand for domestic air travel in the country in 2006-07, they are undoubtedly still a key player in the sector
- 24 Price reported is based on quotes available online, as checked on September 20, 2008
- 25 See "Towards Urban Multi-Airport Systems", Philip H Thomas, *Economic & Political Weekly*, October 14, 2006

Regulation of Higher Education in India

Introduction: Twin Problems of Quality Deficiency and Demand-Supply Imbalance

Higher education is at a crucial juncture: it is undergoing rapid transformation with rising professionalisation and privatisation of courses and declining importance of traditional courses. Private sector institutions in India primarily provide vocational education. However, there is concern about many of them being sub-standard. In other words, the Indian higher education system still has only a very small number of quality institutions. The regulatory system has not only failed to maintain standards in vocational education but also erected formidable competition and quality diminishing entry barriers to the sector providing non-vocational education.

There is sufficient competition among vocational institutions but not among those offering traditional courses. Further, there is some concern about the financial autonomy of universities, both public and private. These are presently not allowed to mobilise sufficient resources from students as fees are regulated. This has led to deteriorating quality.

Despite its expansion, the system is characterised by a demand-supply imbalance. The higher education system has been unable to convert the abundance of youth generated by the demographic transition into adequate supplies of quality human capital. Thus, an excess demand for skilled personnel in many sectors coexists with unemployed hordes of university graduates with no employable skills. A recent National Sample Survey report found that unemployment among youth was highest among graduates, post-graduates and technical diploma or certificate holders. This rate is in the range of 19-20 percent which is way above the current unemployment rate of six percent for this age group.

Some explanation for the demand-supply imbalance can be found in University Grants Commission (UGC) data. It seems that the structure of the higher education system is to be blamed. By the end of 2001 there were 15437 colleges, of which 11128 were for Arts, Science, Commerce

and Oriental learning. The rest, aggregating to about 3000 only, were for professional courses such as medicine, engineering and architecture. Similarly, graduates and post-graduates in general education were 68.3 and 18.45 percent respectively of total graduates in the country, aggregating to 86.58 percent. Most of the graduates in this lot did not possess any special skill that made them job worthy and only about 15-20 percent were employable.

The Emerging Directions in Global Education (EDGE 2008) report spells out the consequences of this demand-supply imbalance: in 2007 there was a 90 percent shortage of scientists with doctoral degrees, 58 of engineers, 80 of wealth managers and financial analysts and 20 percent of post graduates in the biotech sector. The demand for skilled manpower is expected to go up in the future and so will its scarcity.

The higher education system needs a facelift to address this demand-supply imbalance. By 2020 the shortage of professionals in the working age group in developed countries is estimated at around 56 million. Youthful manpower from India (India has a demographic advantage over the rest of the world with approximately 70 percent of the population below the age of 35 years) might well be used to overcome this shortage: an estimated 0.3 million engineering graduates and approximately two million general graduates complete college every year in India. With Indian skilled professionals roped in to bridge the gaps between demand and supply in the Western world, domestic sectors in the Indian economy might be plagued by an even more serious shortage of skilled people¹.

Thus, the core problem remains the gap between demand and supply. Not only are there very few institutions of quality (which results in excess demand for such institutions) the enrolment is also insufficient. Thus, priority must be given to enhancing access to higher education as large segments of population just do not have access to it. The 11th Five-Year plan is set to enhance the gross enrolment ratio to 15 percent. Within higher education, access to professional education must be expanded.

According to the NKC, the opportunities for higher education in terms of number of seats in universities are not adequate in relation to the needs. The NKC recommends a massive expansion of opportunities for higher education through an increase in the number of universities to around 1500 by 2015 to maintain the pace of development and bridge the gap between labour-supply through educational institutes and emerging manpower requirements.

The objective of this paper is to evaluate the quality of regulation and competition in the higher education sector in India. Addressing these problems constitute at least a partial solution to the problems of inadequate quantity, mediocre or poor quality and incomplete access and the idea is to do it through an examination of outcomes. Section 1 examines the trends in higher education. Section 2 analyses political economy aspects governing regulation. Section 3 reviews implementation modalities. Section 4 makes an assessment of the capability of the current regulatory structure to facilitate competition through 'competition assessment' techniques. Section 5 makes recommendations, especially those of the NKC, which are discussed in detail. Section 6 concludes.

1. Trends in Higher Education in India

Although, India has achieved impressive growth in literacy during the last five decades the country is still unable to meet its requirements for skilled labour. In terms of absolute magnitude the Indian skilled work force is large with around 10 million engineers, scientists and technicians. However, its size has to be judged for adequacy in the context of the needs of 1.1 billion people. In fact the ratio of the number of skilled personnel to total population is far below that prevailing in developed countries and even below that in other emerging economies such as China. Moreover, demand for skills is expanding very fast due to high economic growth. The sector is also facing challenges in terms of quality, quantity, funding, employability of graduates and equitable access.

Enrolment and Access

Though these criticisms of the higher education sector are valid, it should also be noted that the growth of higher education in India has actually been rather impressive in the last two decades and presently student enrolment is growing at more than 10 percent per annum. When India became independent, a large majority of people did not have access to higher education. Since then considerable efforts have been made to expand the higher education network. At the time of independence, there were only 20 universities and 500 colleges in India. In 1950, a total of only one lakh (0.1 million) students were enrolled in 700 colleges affiliated to 25 universities. By 2005, the number of students increased to 99.53 lakh (9.95 million) and the number of affiliated colleges and universities increased to 16885 and 343 respectively.

Table 7.1 indicates the enrolment of students in various stages of higher education. Graduates dominate at around 89 percent but significantly post graduates account for 9.18 percent; the share of research students is very poor at 0.66 percent. The faculty wise enrolment of the total of 99.53 lakh students (Table 7.2) indicates the predominance of students

pursuing their degrees in non-vocational courses: Arts (45.12 percent) followed by Science (20.44 percent) and Commerce and Management (17.99 percent). The remaining 16.5 percent are in professional education.

Table 7.1: Stage-wise Enrolment of Students in Higher Education in India

(June 2005)

Stage	University	Affiliated colleges	Total (percent to Grand Total)	Percent in Affiliated Colleges
Graduate	864335	8003043	8867378 (89.09)	90.25
Post-Graduate	315503	598229	913732 (9.18)	64.47
Research	58321	7170	6549 (0.66)	10.95
Diploma/Certificate	58761	48144	106905 (1.07)	45.03
Grand Total	1296920	8656586	9953506 (100)	86.97

Source: Annual Report 2007-08, Ministry of Human Resource Development (HRD), Government of India

Table 7.2: Faculty-wise Enrolment of Students

Faculty	Percentage of Total Enrolment
Arts	45.12
Science	20.44
Commerce/Management	17.99
Engineering/Technology	7.20
Medicine	3.15
Law	3.05
Education	1.47
Others	1.58
Total	100

Source: Annual Report 2007-08, Ministry of HRD, Government of India

Table 7.3 compares higher education scenarios in 1950 and 2007; it is interesting to note that while population has tripled the number of universities has multiplied almost 17 fold, colleges 30, teachers 33 and students 115 fold. This achievement has apparently still not kept up with the pace of development. It is also important to note the lopsided growth of the higher education system: the percentage growth in student enrolment is four times that in the number of teachers and seven times that in the number of universities.

Table 7.3: Growth of Higher Education in India

Year	Universities	Colleges	Teachers	Students
1950	25	700	15,000	100,000
2007	416	20677	505,000	11613,000

Source: Annual Report, Ministry of HRD, 2007

Today, while in terms of enrolment, India is the third largest higher education system in the world after China and the US, in terms of number of institutions it is the largest system in the world. China, with the highest enrolment in the world, manages its higher education through only about 2500 institutions with an average enrolment of about 8000-9000 students per institution as against the Indian average of about 500-600 students.

Nevertheless, the present gross enrolment ratio of 11 percent, achieved after adding around 18000 institutes in the last four decades, is not even close to the world average of 23.2 percent and very far from the developed country average of 54.6 percent (82.4 percent in the US, 60.1 in the UK, and 54 percent in Japan). Even the Southeast Asian countries show much higher enrolment (31 percent in Philippines, 27 in Malaysia, 19 in Thailand and 13 percent in China).

In terms of access, with the expansion of higher education, a large number of students from economically or socially backward strata of society have become a part of the system which was limited to the elites during the pre-independence period. They now account for a large proportion of the total number of students enrolled in higher education. The enrolment of women, for example, has increased from 10 percent in 1950 to 47 percent in 2007. However, even though the proportions of women, minorities and SC & ST students in total enrolled students have been rising over the years, the spread of enrolment by gender and class is still uneven across disciplines.

Phases in Higher Education

For the purpose of analysis, the growth of higher education in India can be divided into three phases: pre 1980, 1980-2000 and 2000 onwards. Till 1980, growth was largely confined to traditional courses. The government took over the responsibility of supporting higher education by not only setting up universities and colleges but also funding educational institutions established by the private sector. Public funding came at a cost of considerable regulation of private institutions by the government². These regulations and some times total transfer of control led to deterioration in the quality of higher education (see Box 7.1).

Box 7.1: Private-aided Institutions in Bihar

In the 1970s, setting up of private colleges was a gainful business in Bihar. Given the large unmet demand for higher education, colleges were set up without proper infrastructure and facilities in the hope that the government would soon take over the responsibility of running them. The state government took over the responsibility of running 286 private colleges during the period 1975-78, whereas only 17 private colleges were taken over by the state government in 30 years prior to that.

Teaching in such colleges became a much sought after source of employment for mediocre housewives and indolent heirs of the power elite. As such teachers were eligible for permanent tenure and government pay scales once government took over, this mode of employment became available for a price. This proved to be a demotivating factor for deserving candidates. Parasitism, patronage and sycophancy became an accepted practice in the academic world. This killed private initiatives and led to retreat of the community from an area which rightly belonged to them.

Source: Adapted from V S Jha Committee Report quoted in the Times of India, March 21, 2005

During the 1980s and 1990s, with the growth of industry, there was a huge demand for higher education, particularly courses suitable for private sector jobs. Thus, the demand for seats in professional and vocational colleges increased greatly. This increase in demand spurred the development of private non-subsidised higher educational institutions offering market oriented courses.

The mentioned growth gained further momentum in the 21st century. At present the higher education sector is still undergoing rapid transformation with increasing vocationalisation and privatisation of courses accompanied by declining importance of conventional courses. As expected, such changes are being hotly debated and criticised.

2. Political Economy of Higher Education

Political economy refers to the distribution of political and economic power across various segments of the population that influences the direction of development and ultimately affects the society. In a country like India, the study of political economy becomes important because of the high incidence of poverty, concentration of wealth and lack of access to basic services like health and education, particularly higher education. There is a clear cut divide between the educated elite and the more numerous uneducated people in terms of incomes and social status. There are four great divides in terms of access to higher education: urban-rural, male-female, rich-poor and high caste-low caste.

The universities in India are established and aided by the government and as a result they are effectively under government control. It is often pointed out that universities created by Acts of legislature and aided by the government are generally influenced by political and bureaucratic interference in their decision-making processes. Even the appointment of the vice chancellor is decided on political grounds.

Literature Review: Desirability of Political Control over Higher Education

However, views differ on the desirability of political control over decision making in universities. Livingstone³ supports political control over decision-making and argues that universities under some political control can lead to better progress in the attainment of goals. Moreover, one of the objectives of the university system is to establish a positive relationship with the outside political world.

MacKinnon⁴ opposes government control over universities and explains how the teaching community and educationists have been sidelined in favour of politicians, bureaucrats and various interest groups with respect to decision making about higher education. His belief is that this would make educational institutions dependent and destroy institutional initiatives, incentives and innovations. The Indian case illustrates this trend. A recent example is the political decision taken by the government to start new IITs without ensuring campuses and faculties. As a result, new IITs have been forced on the existing IITs of Mumbai, Kanpur, New

Delhi etc. without consulting their academic and administrative bodies. These new IITs will continue to draw scarce manpower and other resources from the old ones.

Baldrige⁵ opines that politicians and bureaucrats make policies and laws for the functioning of universities which enhance their control over these. According to him, university governance runs more in a political than collegial fashion as the administrators have to grapple with power groups, conflicts and politics. Again the Indian case fits his description well: politicians make and implement policies with the help of bureaucrats and political minded educationists. Further, there are fragmented interest groups within the universities. The university teaching and non-teaching staff and students are generally divided on the lines of political belief and formal or informal affiliation with various political parties. The vice chancellors have to waste most of their time resolving disputes between these groups.

Rudolph⁶ is of the view that powers and resources given to local communities would promote responsibility and the development of skills required for informed decision making in these communities. His view is that if the government ceased to control university affairs, the universities would become helpless. In this context, in India it is very difficult to differentiate between the role of the government as a facilitator and controller as both are closely linked with each other.

Gould⁷ observed that in all democratic societies, continuous debate and competition occurs over the control of education matters. The issue is not whether politics or politicians shall influence educational processes, but how and to what extent. As educational institutions receive government funds, political influence cannot be removed; however, what can be influenced is the type of political pressure – whether it is to be harmful, benevolent or simply benign.

Thus, the views of various scholars on political regulation of higher education range from those who welcome it to those who consider it an evil which needs to be removed. There are also those who occupy middle ground and are reconciled to its future existence but advocate that it should be tempered through greater representation of community interests.

Phases in Regulation of Higher Education: Linkages with Political Economy Factors

In India, in spite of liberalisation the government still largely owns and regulates the higher education system. There is a growing public demand for more freedom to higher educational institutions but political

implementation of this view has not been very encouraging. In practice, the government does not provide any autonomy to the universities. The universities, particularly state universities, work continuously under political and bureaucratic pressures, with prior permission (written or unwritten) required from the government even for routine matters. Even the decisions taken to improve academic quality do not remain implemented for long because of bureaucratic pleas for financial stringency.

In the 1980s, the government neglected higher educational institutions through reduced funding which led to deteriorating library facilities, obsolete equipment and infrastructure. All this led to deterioration in quality of higher education; as a result today there are very few quality institutions. With limited number of quality institutions, the entry of students into these institutions has become very competitive.

So high are the stakes for entry into such institutions that quota-based reservation of students in the name of affirmative action has occupied centre stage in electoral politics. A subsequent outcome has been a decline in merit.

With a rapidly growing industrial and service sector, the demand for courses which are suitable for the market has got an impetus. Foreign institutions have also started offering courses in India and the non-university sector has grown rapidly. However, private investment in higher education has been concentrated in professional courses and consequently done little for the majority of students enrolled in traditional courses⁸. The share of private sector seats in engineering colleges increased to 84 percent in 2003 from 15 percent in 1960. Similarly, in medical colleges this proportion has risen to almost 41 percent from 6.8 percent. In management institutes this ratio is around 90 percent.

By the beginning of the 21st century, the educational institutions wanted to tailor their expansion plans to the demand in the market but were constrained by the government regulatory system and the system of university affiliation that it promoted. To come out of the control of the state government and affiliating universities, the institutions adopted the 'deemed to be university' route (section 3 of the UGC Act, 1956) to obtain degree granting powers.

During this period, we have seen the huge growth of 'deemed to be universities' and professional/vocational institutions offering courses to meet market demand. The state governments have also started permitting the setting up of private universities by an Act of State Legislature.

According to an estimate by the Federation of Indian Chambers of Commerce and Industry (FICCI), presently about 84 percent of the management institutes, 64 of engineering institutes and 76 percent of medical colleges in the country are managed by the private sector. All this has intensified competition among higher educational institutions, particularly institutions offering vocational courses.

The deteriorating quality in public institutions has led to diversion of students to private educational institutions, particularly institutions offering vocational courses with employment potential. At the same time investment in public institutions, which offer traditional courses, has gone down. The declining relevance of university degrees in an increasingly market-oriented economy and the use of competitive examinations as entry points into the job market have led to reduced interest among students in university courses with weakening demand for improvement in the quality of such higher education. The focus has shifted towards informal educational institutions that can ensure success in competitive examinations, which are a passport to jobs or job-oriented courses.

The expansion of the education system in India has been largely motivated by political considerations and contributed to the already existing mismatch between demand and supply. The need for private investment has been felt by the government but politicians themselves have dominated the provision of private sector education⁹. The politicians or their relations own a large number of private educational institutions, directly or indirectly. These institutions are often registered in the names of charitable trusts or societies. The non-profit status of the trust/society that runs these institutions also gives access to almost free land and allows for tax exemption.

The Private Universities (Establishment and Regulation) Bill was introduced in the Parliament in 1995 to facilitate the establishment of self-financing universities. The Bill is still pending in the Parliament because the politically dominated private sector is not very happy with several clauses (permanent endowment fund of Rs 10 crore, provision of free-ships to 30 percent of students, government monitoring and regulation) in the Bill.

Financing of Higher Education

The analysis of public expenditure on higher education is also important to understand the political economy of higher education. Financing of higher education and the associated funding mechanism constitute the most crucial aspect of the development of higher education. In the 1990s, while demand for higher education grew at a fast rate, the Central and state government's financial support to higher educational institutions

declined in real terms. This financial crunch led to deteriorating quality and rising demand for private educational institutions.

There was also a conscious reduction in the budget for higher education in the 1980s and 1990s: it was felt that public expenditure on higher education should be reduced as it benefits the well off sections of society and not the lower strata. Reduction of public expenditure on higher education was urged on the grounds that there is a trade-off between funds spent on higher education and that spent on primary and secondary education. This argument did result in some changes on the ground – expenditure on higher education declined from 15 to 10 percent of total expenditure on education from the 1980s to 1990s though it remained static thereafter. It is important to note that this is the time period which registered rapid expansion in enrolment in higher education implying that per student spending in higher education dropped¹⁰.

The government has argued for reduction in subsidy on higher education by claiming that higher education is a non-merit service. The argument cannot be supported as the number of females and members of marginalised social groups going in for higher education has gone up significantly.

While the government was reducing public expenditure on higher education and public institutions were facing a financial crunch, these institutions were not even allowed to mobilise private resources through higher fees, charity, alumni etc. The result was deterioration in the higher education system.

Summary

Thus, the Indian higher education policy has not been driven by a clear vision but by the government's own interest and whims. The government machinery exercised its control in the name of education policy and regulation. Politicians and bureaucrats supported the increase in state control as their own influence and power was enhanced; they practically made these institutions an extension of government offices. Similarly, politicians also started using these institutions as nurseries and breeding grounds to generate more of their kind. As a result, the system is suffering from deteriorating quality, insufficient resources and unrest. However, there have been some examples of success (IITs & IIMs).

A review of trends in the political economy of higher education reveals an initial steely control of the state over regulation and finance; that control has seen some diminution with private and foreign direct investment (FDI) playing an increasingly prominent role from the 1980s onwards. However, the government has been stubborn in relinquishing

its influence. Some of this influence has been retained through new channels: politicians establishing non-profit trusts to acquire land and start their own educational institutions.

3. Implementation Modalities

Perfect competition and efficient markets are an ideal difficult to achieve in real life. In general, most markets breach one or the other assumption underlying perfect competition. However, competition in higher education has too many imperfections; this increases the likelihood of undesirable consequences.

Recently there have been some favourable developments in regard to competition; various factors that impeded competition in the past are now becoming less important. The changing structure and delivery of higher education is creating a competitive market.

At present, Indian higher education is still considered to be sub-optimally organised and highly regulated, a fact which limits initiatives for change and stifles private efforts. The NKC in its report concludes, “The existing regulatory framework constrains the supply of good institutions, excessively regulates existing institutes in the wrong places, and is not conducive to innovation or creativity in higher education”. Thus, regulatory arrangements inhibit both the reform of higher education and the mobilisation of additional resources, particularly private resources, for its further development.

Present Regulatory Design

Higher education suffers from excessive government control. Till date, this sector is tightly controlled and the government has concentrated all its energies in regulating institutions, by regulating whom educational institutions can teach, what they can teach and charge. However, regulations have not paid any attention to quality of teachers, teaching and research. There are considerable entry barriers for universities: they can be set up only through legislation; approval procedures for starting new courses are cumbersome; and syllabi revision is slow due to affiliation of colleges. There is little scope of innovation or discretion available to higher educational institutions, whether public or private. There is no evaluation of teachers and accreditation systems are extremely weak and arbitrary. Regulators permit relatively little autonomy and variation in curricula, which lead to shortage of quality institutions.

The growth of higher educational institutions has been accompanied by an increase in the number of statutory bodies that govern the institutions in some way or the other. At present there are multiple agencies and a complex web of rules and regulations that govern the higher education system in the country. In addition to the UGC as the apex body, there are 13 professional councils at the national and five at the state level; the state councils, affiliating universities and state governments are the key players in the regulatory system of the country.

As per the constitutional mandate, higher education had been made the responsibility of state governments, but in practice, the Central Government through its various agencies also has an important role in governing related institutions and defining higher education policy. The Central Government has the final say on various issues concerning institutions for higher education, including appointments, as various regulatory bodies are funded by the central government.

In effect, UGC, professional councils, a few research councils and state governments are the main players in higher education regulation in the country. In addition, there are almost 15 ministries/departments in the Government of India that establish, finance, or regulate higher education institutions. There are significant differences in the mandate, powers, and functions of the different regulatory and statutory bodies. This leads to overlapping jurisdictions of these bodies and most of the clarifications come from courts rather than regulators.

The Ministry of HRD as also the other concerned ministries have unambiguously failed to arm the professional bodies created by them with requisite powers as mandated by the Constitution. The professional councils have also failed to devise a mechanism at their own level and have not framed appropriate rules and regulations. These also have not developed a system of supervision and control over the institutions these are required to deal with. Moreover, these councils are hampered by inadequate funding and reduced autonomy in the discharge of their functions.

For example, the UGC is vested with the responsibility of coordination and provision of funds and, determination and maintenance of standards in higher educational institutions. The UGC does not have the means to control the quality of teaching and recruitment of faculty to ensure minimum infrastructure for all institutions and engage in the monitoring and promotion of research.

Higher education is widely influenced by state policies and the majority of states are not fulfilling their mandate. Moreover, the present regulatory procedures are too detailed and reduce the responsiveness of

institutions for higher education to the changing needs of society. These regulations often erect entry barriers to the private sector. However, the higher education system is gradually being opened up which is a welcome sign for the future.

4. Competition Assessment

Ensuring fair competition in markets is very important for the development of a country like India. Yet there are government policies, rules and regulations that pose a threat to fair competition. To ensure fair competition, it is essential to identify and address anti-competitive practices and policies prevailing in both public and private sectors. The objective of 'competition assessment' is to examine the potential harm/benefit that might be caused to competition by the rules and regulations laid down by regulatory agencies. Table 7.4 summarises the competition assessment of higher education regulation in India:

Table 7.4: Competition Assessment of Higher Education Regulation

S. No.	Factors Impeding Effective Competition	Present Status
1	Barriers to entry	<p>A university can only be set up through Parliamentary/ Assembly legislation. For setting up a private university, each university requires a separate State Act confirming to the relevant provisions of the UGC (Establishment of and Maintenance of Standards in Private Universities) Regulations 2003. A university set up under a State Act is allowed to operate only within the state concerned. It can be allowed to open off-campus centres only after five years of its establishment and only with the permission of UGC and the state government of the host State.</p> <p>These requirements are formidable obstacles and make entry a cumbersome process. The non-vocational sector, particularly, suffers from a lack of competition because of institutionalised barriers to entry created by the government itself, resulting in both inadequate quality and quantity of higher education. However, the entry in case of professional colleges has been effectively deregulated which is not ideal in the case of courses such as those on medicine. Such deregulation might have adverse effects on human health and life.</p> <p>There are other aspects of regulation that constitute entry barriers. For example, the UGC Act section 3.1.2(a) suggests that an additional institution</p>

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S. No.	Factors Impeding Effective Competition	Present Status
		will be permitted only if the Commission is satisfied that the existing institutions in the state do not adequately serve the needs of the state. The institutions also require permission of the relevant state government for their establishment.
2	Price control	<p>The government regulates fees at a low level to facilitate equitable access to higher education. It restricts the freedom of the institution to decide fees leading to poor quality of education.</p> <p>The Private Professional Education Institution (Regulation of Admission & Fixation of Fee) Bill 2005, controls the admission structure and fees of both aided and unaided professional educational institutions dividing the total seats into management and general categories. It also describes the different fee slabs for both categories. The government also regulates fees for management quota seats.</p> <p>The government resources for higher education are insufficient; raising fee levels to meet the cost of education is critical for improving the quality of higher education. In a competitive world there is no reason why fees should not cover the cost of quality education.</p> <p>The problem of deserving students not being able to afford education can be addressed by scholarships and educational loans.</p>
3	Freedom for entry and exit	<p>There is fair amount of freedom for entry and exit in both vocational and non-vocational sectors. But the entry is allowed only to non-profit making organisations.</p> <p>Profit making organisations should also be allowed to enter this sector... These institutions can be registered under Section 25 of the Company Act which allows surplus generated to be re-invested for the expansion and quality improvement of the institution.</p>
4	Barriers to raising finances	<p>Institutions are allowed to raise finances through charity, donations, alumni contributions etc. but lack of autonomy of educational institution works as a barrier in attracting such finances. The people or trusts willing to give substantial finances to educational institutions also expect to have a say in its use and governance. But the poor governance structure of most of the higher educational institutions and state interference does not allow for such mechanisms.</p>

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S. No.	Factors Impeding Effective Competition	Present Status
		The government encourages institutions to raise funds but funds raised are deducted from the original state grant amount earmarked for the institution to arrive at the actual grant amount.
5	Grants of exclusive rights to operate	The State universities get exclusive rights to operate in a defined geographical service area allocated by the state government. The colleges affiliated to a state university follow the same syllabi, take the same examination and get the same degree for any given course. The practice of affiliating colleges to universities coupled with exclusive rights for state universities limits competition and creates monopolistic situations for affiliating universities.
6	Lack of competitive neutrality	To the extent that central universities and other government institutions are highly subsidised by the state they are able to provide greater value for money than government aided non-governmental institutions or unaided private institutions.
7	Limitations in provision	There are supply-side constraints in general. Further, access for economically backward and rural students is limited due to: <ul style="list-style-type: none"> ● regional disparities in quality educational institutions; ● lack of affordability; ● rural urban disparities; ● lack of information; ● limited choice.
8	Do rankings change?	Rankings of universities/institutions do not change much over time. In technical education IITs dominate; and in managerial education the IIMs are at the top. In non-vocational education a select bunch of universities do much better than the others.
9	Reduction in potential for competition	As we have seen privatisation and permission for FDI has increased the scope for competition though much more needs to be done.
10	Do students have enough information?	Transparency is the key to ensure accountability which is inadequate. To enhance transparency, disclosure norms for admission criteria, educational profiles of students entering the institution, faculty positions, academic curricula and accreditation for all educational institutions are needed.

The intent of regulation should be to ensure affordability of education without sacrificing quality. Inadvertently this ethos is getting translated into entry barriers for new entrants. The setting up of educational institutions requires clarity about the future educational needs of the country given its demographic profile, targeted pace of economic growth and the needs of the knowledge-based economy. A strategic perspective is needed to drive public policy both at the Central and state government level.

For the expansion of the higher education system, the entry barriers for private institutions and PPPs need to be relaxed. Private institutions should be allowed freedom to develop their own internal operating procedures and be financially autonomous. However, regulation should ensure that private institutions adhere to certain minimum standards in terms of infrastructure, curricula and admission policy. Accreditation can be used as a mechanism to ensure academic and infrastructure quality. Regulation should also ensure a level playing field between public and private institutions.

NKC also recommends allowing quality foreign universities into the Indian higher education sector so that competition among universities can be enhanced. It also recommends formulation of appropriate policies for entry by foreign universities including incentives for quality institutions and disincentives for sub-standard ones. The present regime does the opposite: sub-standard institutions rush in while quality institutions with concerns about autonomy stay away.

In the present system autonomy is eroded by interventions from the government. The NKC has also emphasised that the requirement of an Act of Legislature for the inception of a university is a potent entry barrier. Such entry barriers lead to steady increases in the sizes of existing universities and continuous deterioration in their quality due to absence of competition.

5. Recommendations

Independent Regulatory Authority for Higher Education

The present regulatory system constrains the supply of quality institutions and is not conducive for innovation. UGC is a relic of the control era and regulates many unnecessary aspects of an institution. Other regulators like All India Council for Technical Education (AICTE) are also antiquated. The NKC feels that there is a multiplicity of regulatory agencies with confusing and overlapping mandates. The system is over regulated but under governed. The regulatory system should

foster competition as well as accountability in institutions. As a way out, the NKC recommends the establishment of an Independent Regulatory Authority for Higher Education (IRAHE) that would be an umbrella organisation founded under a separate statutory act. The IRAHE has been recommended for various reasons.

According to NKC recommendations, the IRAHE would be the only agency to accord degree granting powers to higher educational institutions and monitor standards, settle disputes and license accreditation agencies. The IRAHE will take over most of the functions of UGC and all the functions of AICTE, the Medical Council of India (MCI) and the Bar Council of India (BCI). The IRAHE would perform all regulatory functions related to higher education and not distinguish between public, private and foreign institutions. The role of UGC will be redefined and focus on disbursal of grants and maintenance of public institutions in higher education. The roles of AICTE, MCI and BCI would be limited to those of professional associations conducting nationwide examinations and providing licenses to those wishing to enter the profession.

To monitor quality, the IRAHE would issue licenses to accreditation agencies, private or public. It would be at “an arm’s length from the government and independent of all stakeholders including the concerned ministries of the government”. It would also take over the power of state governments to set up universities. Thus, IRAHE would provide single window clearance and replace multiple regulatory agencies which have often been inconsistent in their adherence to principles.

The IRAHE would be established by an Act of Parliament and its chairperson and members be appointed by the Prime Minister on the recommendation of a search committee. The IRAHE would have a chairperson and six members, each with tenure of six years. However, one-third of the members would retire every two years. A person with a distinguished academic background in any discipline with experience of governance in higher education will be appointed as chairperson. The members would also be distinguished academics drawn from the physical sciences, life sciences, social sciences, humanities and professional subjects respectively. NKC also recommends the appointment of some part-time members or standing committees drawn from academia to advise the Authority in each of the aforesaid disciplines.

The establishment of an independent regulator is a very good idea but one has to ensure that the implementation of IRAHE, in which all the powers of the existing autonomous bodies are to be vested, does not go the UGC way as the recommended selection process of chairperson and members is not very different. The chairman and members of IRAHE will be nominees of the Prime Minister. At present, the chairpersons of

all bodies – the UGC, AICTE and the MCI – are also appointed through a search committee on the approval of the Prime Minister.

The IRAHE will help to create a degree of institutional autonomy and at the same time encourage competition in higher education. Both access and quality cannot be achieved without a high degree of institutional autonomy, decentralisation, innovative structures and systems and the tapping of additional resources through a PPP.

Like NKC, the ARC also recommends exclusion of the regulation of professional education from the domain of existing regulators. But ARC does not agree with NKC about giving overall command of all streams of professional education to IRAHE as that would, in its opinion, violate the principle of decentralisation which is an important element of good governance. The ARC recommends a separate body for each professional field of study instead of an overarching regulator for all fields.

The ARC recommends the creation of the mentioned apex regulatory bodies by law so as to ensure uniformity in their composition and structure¹¹. The Commission is of the view that these Councils need not work as regulators in the classical sense as they will not have licensing functions. The Councils would only be responsible for laying down norms, standards and parameters for setting up new institutions; updating curricula; undertaking faculty improvement; and facilitation of research and any other key issue concerning the stream. The commission emphasises that the Councils should have full autonomy and be accountable to the Parliament.

ARC also makes recommendations about the structure and composition of general councils and executive committees of professional regulatory authorities. It recommends that every Authority should have a fairly large and representative General Council so that it encourages a wider perspective and diversity of opinions. The Executive Committee should be a small body so that administrative efficiency and accountability can be ensured. It also recommends only one term for the posts of President, Vice President and General Secretary and a maximum of two terms for the members of the Body.

Affiliation

The NKC recommends significant reforms and an overhaul of the higher education system in the country. It recommends the massive expansion of opportunities through an increase in the number of universities to 1500. This would ensure that the gross enrolment rate in higher education could be increased to 15 percent by 2015. This recommendation has met

with strong objections from various quarters, as it is argued that that the recommended number is not based on any detailed analysis.

Our higher education system is dominated by affiliated colleges which account for 90 percent of undergraduate and 66 percent of post graduate students in the country. In many cases these colleges are characterised by poor quality of faculty. Around 84 percent of the total faculty in higher education are in affiliated colleges and undertake no research at all. Only 16 percent faculty engaged in universities are supposedly involved in research. The present affiliation system encourages a pointless blame game between colleges and the university. The former can easily blame the latter for poor curricula and examination systems and the latter can easily blame the poor teaching of the former for poor outcomes.

The NKC therefore recommends restructuring of undergraduate colleges affiliated to universities. It proposes that colleges which are not suitable for autonomy could be remodelled as community colleges that may be affiliated to a Central Board of Undergraduate Education (CBUE) or State Boards of Undergraduate Education (SBUE) or existing universities which would set the curriculum and conduct examinations.

In the long run, it seems that the affiliation system should be abolished in a phased manner as it does impede the provision of quality education. It is essential to give full control to colleges over the content of their programmes as well as teaching and evaluation. The universities can start by regulating only a limited number of courses. Gradually, the regulated and centralised content can be phased out, giving the colleges full control. This will give colleges time to build their own structures for curriculum development and evaluation.

Access

The NKC mentions in its report that education is the fundamental mechanism for social inclusion through the creation of more opportunities. It suggests that no student should be denied access to higher education due to financial constraints. The Report emphasises that financial barriers can be addressed by scholarships or cross-subsidisation. The institutions can set a fee of their own choice and commercial banks can finance the entire cost of education. Since the commercial banks may be hesitant to fund economically backward students, the NKC recommends a well-funded and extensive National Scholarship Scheme for these students.

Generally it is argued that regulation of fees would render more equitable access to higher education. But it should be realised that in order to

make higher educational institutions competitive and centres of excellence, the entry of competent private players is essential even if that raises the cost of higher education. In this situation, the government has to either subsidise higher educational institutions or allow them to mobilise resources through fees from students. As the government is not able to subsidise all higher educational institutions sufficiently, it is better to provide freedom to these institutions to increase their fee. Amongst other sources which can improve the financial health of universities are user charges for facilities being used by outsiders.

The students who cannot afford increased fees can be provided with scholarships in the form of educational vouchers or loans through commercial banks. The government should ensure easy availability of educational loans by developing a body which can guarantee loans for students. Incentives like interest waiver on loans can be provided to students in professional courses like medicine as long as they are willing to serve in rural areas after completing their course.

Quality Control

The NKC clearly addresses certain valid concerns about the quality of education. Faculty, infrastructure and quality have been subjects of concern. The system does not foster creative thinking, innovation and alertness and as a result the institutions continue to indulge in practices that do not create academic excellence.

Most of the existing curricula are by and large fixed and do not grant any flexibility to teach what may be relevant and useful for the students with changing times. With the given curriculum, the examination pattern is such that it tests a fixed pedagogy, not the knowledge of the students.

The main regulatory reason for the inadequate quality of higher education provided by universities is insufficient competition caused by barriers to entry. In contrast, there is sufficient competition in vocational education but it is almost unregulated. Accountability is a critical determinant of quality.

The NKC feels that one of the important pre-conditions for quality higher education is accountability at every level. Therefore, it recommends that the higher education system must provide for accountability *vis-à-vis* the outside world and create accountability within the system. The essential objective behind accountability to society would be to empower students to take decisions rather than simply increase the power of the state. The NKC suggests creating systems that enable students to choose among universities after assessing these¹².

It is well recognised that academic autonomy is essential for enhancing quality of higher education. But autonomy cannot give expected results unless higher educational institutions are made accountable to society. Thus, the need of the hour is to balance academic autonomy with transparency and accountability. This assumes critical importance in the context of growing commercialisation of higher education.

The accountability of educational institutions can be enhanced by encouraging regular academic audits including appraisal of student feedback. Institutions should clearly spell out details of courses offered, faculty positions, admission criteria, schedule of examinations and results, placement options, resource generation mechanisms etc. Rising competition among educational institutions and wider choice facing students will also enhance accountability.

For maintaining quality, testing of individuals on the output side and initiation of a strict evaluation system for students and teachers is required. Once teachers are appointed, they can be evaluated annually in terms of their quality of teaching and research. More importantly, efforts need to be made to attract and retain good quality faculty by providing better working conditions and incentives for performance. The Prime Minister has also emphasised this issue and the UGC is looking at providing better incentives for teachers.

Accreditation is an important tool for monitoring the quality of higher educational institutions but the accrediting body should be truly independent. India is a rare case as the regulator and the accrediting agency serve under the same governance structure. It is essential to de-link the accrediting agency from the regulatory authority and make it independent. To promote independence, accreditation by international bodies should be acknowledged and encouraged. Institutions should be free to choose any recognised accrediting agencies.

Other Supporting Measures Recommended by the NKC

The following other pro-active steps in regulation also need to be taken according to the NKC:

- Evaluation of courses and teachers by students as well as peer evaluation of teachers.
- Focus on continuous assessment of syllabi and examination systems.
- Revalidation of professional registration/license after a prescribed period: It should only be done after successful completion of a course prescribed by the regulatory body.
- Enhancement of Information and Communication Technology (ICT) infrastructure through web-based services to improve transparency and accountability.

- Allowing salary differentials within and among universities along with other means to attract talented faculty to foster competition.
- Appropriate policies to encourage entry by foreign universities and promote Indian universities abroad while ensuring a level playing field for foreign and domestic universities within the country.

Foreign Education Providers

As discussed above, the Indian higher education system needs an improvement in quality. Quality can be facilitated to an extent by better allocation and utilisation of resources. But domestic sources would be inadequate for the required doubling and trebling of outlays on higher education needed to overcome the vast deficit in basic capabilities. Thus, additional foreign investment from developed countries should be encouraged.

This has sadly not been the case. Automatic approval to FDI in education is not provided unless the concerned foreign entity is partnered by an Indian institution which invests in excess of 50 percent. The Foreign Universities Entry and Operations Bill, currently under consideration, might do away with this requirement. But even the draft of this bill imposes certain restrictions which would drive almost all but the most desperate Foreign Education Providers (FEPs) away.

The commercialisation of education is portrayed by the draft bill as an evil which needs to be tackled by the regulatory authorities, probably through regulation of fees. Such declarations will definitely deter entry of FEPs, reared in an environment where commercial success and good product/service quality go hand in hand.

There is also the declaration of intentions to monitor and influence the admissions criteria adopted by the FEPs. These again might not be tolerated by high quality FEPs which take their commitment to excellence very seriously.

In short, the country's policy towards foreign education providers discourages the entry of excellence. A policy of non-interference in curricula and admission criteria adopted by both foreign and private domestic education providers is best for the generation of badly needed human capital. Signals about quality can be provided through the accreditation process. The government needs to step in only as a financier for economically backward students and a facilitator of accreditation. In reality, India's open door policy towards foreign education providers remains only notional: foreign entry remains blocked by stifling regulations.

6. Conclusion

The coverage of higher educational facilities in India has increased substantially since independence but enrolment still remains very low in comparison to several developing and developed countries. This is certainly a cause for concern. The private sector, which has recently contributed to enhancing access to higher education, is limited to vocational courses. The quality of higher education is also sub-standard and there are very few institutions providing quality education. With inadequate quality we face a contradictory situation; industry is not getting required skilled manpower while graduates are unemployed.

It is important to facilitate freer entry of educational institutions to stimulate competition and enhance enrolment. There is sufficient competition in the vocational sector but the non-vocational sector suffers from a lack of competition because of entry barriers created by government's rules and regulations. Regulation also needs to be more proactive to ensure that higher educational institutions evolve according to the requirements of the Indian market.

Improvement in the higher education system also requires an increase in the number of universities along with abolition of the system of affiliating colleges to universities. It is also essential that no student is denied the opportunity to access higher education due to financial constraints. To enhance affordability of higher education for economically backward students it is necessary to ensure easy availability of educational loans from financial institutions guaranteed by a government body.

Endnotes

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- 6 Rudolph H S & I L Rudolph, *Education and Politics in India*, Harvard University Press, Cambridge, 1972
- 7 Gould Harold, "Educational Structures and Political Process in Faizabad District-UP", Chapter 7 in Rudolph. & Rudolph, *Education and Politics in India*, Harvard University Press, Cambridge, 1972
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- 9 *Ibid*
- 10 *Ibid*
- 11 *Social Capital - A Shared Destiny*, Ninth Report, Second Administrative Reforms Commission, Government of India, New Delhi, August 2008
- 12 www.knowledgecommission.gov.in/downloads/recommendations/HigherEducationNote.pdf

Epilogue

The 2007 report of the *Competition and Regulation in India* series deals with the subject using a broad brush. The need for and evolution of competition policy and law is studied and implementation evaluated to generate an agenda for action. In this report we look more closely at sector regulators (see box 8.1) which are able to take into account sector specific technological nuances in identifying the structural (natural monopolies, externalities and information asymmetries) as well as agent induced (anti-competitive practices) causes of market failure and alleviating these. Thus, the sector regulator has a key role to play in ensuring that such market failures do not constitute a major constraint on the optimisation of the contribution of each sector to economic welfare and growth.

Box 8.1: Sector Regulators vs Competition Authority: A Comparison

A competition authority's jurisdiction extends across sectors but its mandate is restricted to *ex-post* action against anti-competitive practices, and competition advocacy (creation of awareness regarding the benefits of competition and the associated responsibilities of stakeholders). On the other hand, a sector regulator, which only deals with a specific sector, has two tasks: to suitably check the free play of market/competitive forces so that market failures arising out of structural factors such as natural monopoly elements, externalities and information asymmetries do not result in market failure; and ensure that the scope for anti-competitive action is minimised. Both these functions involve *ex-ante* action.

Ex-post action against anti-competitive practices involves issuing warnings to economic agents undertaking/about to undertake anti-competitive actions, and in extreme cases taking punitive action against such agents. It is believed that such warnings/punitive actions have a deterring effect on the concerned agent(s). Anti-

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competitive action includes cartelisation (arrangements among firms to share markets, keep prices high etc); abuse of dominance (use of market power to deter entry) and vertical arrangements (biased treatment by a firm favouring a subsidiary that is vertically linked to it over a rival production unit).

In contrast to *ex-post* responses required from the competition authority, the actions needed from a regulator are necessarily *ex-ante* and preventive – a few examples are as follows:

- In the case of a natural monopoly (water treatment), a regulator might issue only a single license for provision/production but try to simulate competition by making the renewal of the license conditional on performance
- In the case of information asymmetries (packaged water) which hamper buyers in making correct purchases, the regulator might step in with information and certification so that markets can provide welfare optimising outcomes
- In the case of externalities (corresponding to the economic agent not bearing all the costs of his action such as pollution from steel production) a regulator may step in with taxes which restrict the action generating the externality to reasonable levels
- In certain cases, the attainment of competitive outcomes might not be automatic. The regulator facilitates necessary coordination among agents so that competition can be facilitated – for instance, queuing norms in civil aviation to ensure that meaningful and welfare enhancing competition among rival airlines can be facilitated. Similarly, the framing of interconnectivity agreements which require the incumbent to provide roaming facilities to customers of a new entrant.

The current state of play in the regulation of each of the studied sectors – power, ports, higher education, agricultural markets and civil aviation – has been discussed and analysed in great detail in this book and alternative views/recommendations discussed. This chapter concludes the report by clearly and systematically stating CUTS recommendations for the future regulatory agenda in each of these sectors. A clear time line for action which details the sequence of these changes is provided. The sequencing of these changes is done in a logical manner taking into account the relative ease of implementation of individual changes.

I. Higher Education

Changes recommended by June 01, 2010

- 1) Quality checks should not act as a constraint on flexibility in the content of syllabi as economic development and globalisation call for a diversification of human capital. Therefore, educational institutions should be allowed to respond to changing needs by structuring syllabi and course content accordingly. **In other words, individual educational institutions — for example, reputed colleges within universities — should be allowed to autonomously come up with their own customised syllabi and courses for the development/enhancement of targeted skills.**
- 2) It is believed that legalisation of profit making provision of education coupled with quality checks would stimulate the provision of quality education. Before such legalisation, institutional steps should be taken to ensure that that access in the post legalisation era is not preconditioned on income/purchasing power:
 - (i) **A well funded National Scholarship Scheme for economically backward students, as recommended by the National Knowledge Commission, should be introduced.**
 - (ii) **Government should facilitate lending by commercial banks to those unable to pay fees on the basis of their expected future incomes.**

Changes recommended between June 01, 2010 and December 31, 2010

- 3) As mentioned, higher education should not be looked upon as a holy cow. **Profit making should be allowed in higher education to induce entry by the best institutions which would maximise the beneficial effects of competition and enhance quality. Private institutions should be allowed to set a fee of their choice to encourage entry by the best.** To ensure that this actually leads to an enhancement of quality rather than its dilution the following complementary steps need to be taken:
 - i) **Adequate information about the quality of institutions should be provided** through robust accreditation processes to ensure that fees are commensurate to quality of education.
 - ii) **Reinvestment of surpluses generated/profits earned by educational institutions should be allowed** to facilitate quality improvement and enhancement of capacity over time.

***Changes recommended between December 31, 2010 and
December 31, 2011***

- 4) **The confusion stemming from the present complex web of multiple regulatory agencies and accreditation authorities should be done way with through an apex regulator for each clearly delineated field of study, as recommended by the Second Administrative Reforms Commission.** This would be the only agency to accord degree granting power, settle disputes and license accreditation agencies as well as lay down norms and standards and facilitate faculty improvement.
- 5) **At the same time, the regulatory design of apex regulators for various fields should be standardised.** Elements of regulatory design include composition of the regulator, selection procedures/norms, conditions of tenure and powers/responsibilities.

II. Power

The problem is one of poor implementation/use of regulations/norms/rights/facilities that are already in place – open access facilitation that is required of ERCs; selection of regulators through an independent and unbiased process; the rights of ERCs to raise revenue through levy of license fees, regulation fees etc. which, in turn, stimulates functional autonomy; payment of subsidy amounts by the state government in advance to distribution companies; and avenues for consumer participation provided by ERCs. Such poor implementation calls for the following steps by stakeholders:

Recommendations for initiation of changes by June 01, 2010

- 1) **Greater activism on the part of CSOs to ensure that regulations which are in place, such as those provided for open access and independent selection processes, are actually implemented and facilities, such as those for consumer participation in formulation of regulation, are actually utilised in at least 50 percent of the major states of India.**
- 2) **Judicial intervention to ensure that rules such as those pertaining to selection of regulators and payments of subsidy amounts in advance are not flouted.**

The above changes are necessary for ensuring that privatisation and unbundling of the power sector do result in an increase in competition, and, therefore enhancement in provision, decline in tariffs and better quality.

III. Agricultural Markets

Changes recommended by June 01, 2010

- 1) **The government should remove the restriction on mandatory selling and buying in regulated markets. Instead, regulated and unregulated markets should be allowed to co-exist so that competition for the farmer's produce is enhanced.**

Changes recommended by December 31, 2010

- 2) The above regulatory changes should be accompanied by competition enhancing infrastructure changes:
 - i) **A doubling of rural all weather road length in each state of the country so as to facilitate access of the farmer to a number of markets.**
 - ii) **Mobile connectivity for 50 percent of farmers in the country and the provision of market information to these farmers (about alternative options to sell) through such connectivity.**
 - iii) **Access of 25 percent of farmers in the country to warehousing facilities enabling them to postpone sales and avoid low prices (that might accompany the gluts after harvest).**

Changes recommended between December 31, 2010 and December 31, 2011

- 3) **A system of “Certified Warehouse Receipts” should be instituted to take further advantage of the recommended expansion of warehousing facilities.** In the case of non-repayment of loan, these receipts would be transferred to the lender with a corresponding change in the ownership of produce. Thus, loan compliance would be enhanced, which, in turn, would increase the creditworthiness of farmers in the eyes of the organised financial sector. Loans for farm investment would become more easily available and contribute to an increase in yield and production.

The sale of these receipts would enable the transfer of ownership of produce without altering its physical location, i.e. the produce could then continue to remain in the warehouse.

IV. Ports

Changes recommended by June 01, 2010

- 1) In view of the growing importance of ports as a medium for container trade and the increasing globalisation of the Indian economy, **a unified authority to regulate all Major and Minor Ports in the coastal region of the country and also Dry Ports (such as Inland Container Depots and Container Freight Stations) should be set up through legislation** to facilitate efficient multimodal transportation. This would facilitate fair competition among ports, which, in turn, would raise the quality of service, decrease tariffs across the board and bring about an improvement in efficiency indicators such as turnaround time.
- 2) **The above legislation should specify the regulator's role in ensuring a proper balance between long term public responsibilities (safety, environmental protection etc.) and normal shorter-term business objectives, and the promotion of competition by facilitating greater access.**
- 3) The employment conditions of officials/members in the new regulator should not be controlled by the government. Such control is currently exercised by the government which also has the right to supersede decisions made by TAMP. With the government having considerable shipping interests of its own it becomes very hard for the regulator to adhere to principles of competitive neutrality. We make the following concrete recommendations for ensuring regulatory autonomy of the umbrella regulator:
 - i) **The selection of members should be done by an independent Selection Committee. Members should be granted security of tenure through the mentioned legislation** and this should be provided in practice.
 - ii) **The legislation should not provide for supercession of the decisions of the regulator by the government** as such a privilege has greatly reduced the effectiveness of TAMP. **Instead there should be an appellate authority to listen to complaints against regulatory action and stipulate remedial action.**
 - iii) In order to promote regulatory autonomy and facilitate information gathering exercises, which, would, in turn, facilitate better regulation, **the legislation should provide for earmarked funding for the proposed umbrella regulator.** This would remove governmental discretion in this regard — a power which can be used to influence the functioning of TAMP.

***Changes recommended between June 01, 2010 and
December 31, 2010***

- 4) The regulatory authority should shift from cost plus norms to normative methods in fixing tariff ceilings so that efficiency is enhanced.

V. Civil Aviation

Changes Recommended by June 01, 2010

- 1) Pricing of ATF needs to be rationalised. The market should be allowed to take over in this regard and private provision of ATF should be promoted. A reduction in ATF prices through private competition in the market for this fuel would increase consumer welfare and at the same time enhance the economic viability of private airlines. **In other words, the present near government monopoly on ATF provision, associated with high prices of the fuel, should be terminated.**
- 2) **The entry of foreign carriers into domestic aviation should be permitted.** This would facilitate the permeation of global best practices in aviation into the domestic civil aviation sector. At the same time, it would facilitate greater competition, which, in turn, would boost consumer welfare through enhancement of service quality and reduction in prices.
- 3) **Multiple airports should be permitted in cities with populations over a million. To ensure that large excess capacity is not created, a maximum of two licenses should be given for operating airports in urban areas with populations ranging between 1 and 5 million and a maximum of 4 licenses for cities with populations exceeding 5 million.** Competition among multiple airports, both public and private, would reduce costs for airlines through competition. Such reduced costs would be passed on ultimately to the customer. Competition would also enhance quality of service at airports.

Changes recommended by December 31, 2010

- 4) **A comprehensive regulatory/policy framework should be instituted to stimulate cost cutting, price reducing and quality enhancing competition through an integrated coverage of aviation and airport infrastructure issues.**

Conclusion

In this concluding chapter we have drawn up a concrete set of recommendations for implementation. A time line has been suggested for implementation of these recommendations – recommended measures have been sequenced taking into account their relative viability. Thus, measures which can be implemented easily are scheduled for early implementation whereas others which are more difficult to implement or build on the first set follow next.

Most of these recommendations are for the government but some are for the civil society and the judiciary as well. While the sectors studied are extremely diverse in terms of their structures as well as functions, the motives behind these recommendations have a lot in common: greater private participation and competition through the establishment of a level playing field; greater regulatory autonomy including security of tenure for regulators; and in some cases, checks on product quality.

“...pleasure and deep satisfaction in supporting CUTS and CIRC in studying the regulation and competition scenario in India through this report and its predecessor, Competition and Regulation in India, 2007. The report comes out with an important recommendation..., coordination between various national level regulators”.

– **Creon Butler**

UK's Deputy High Commissioner to India

“...congratulate CUTS on taking such an important initiative in competition issues; this report would be an important milestone...on competition and regulation in India. There is a need to create awareness regarding the Competition Commission of India (CCI) and its functions and the commendable work being done by CUTS”.

– **Dhanendra Kumar**

Chairman, Competition Commission of India (CCI)

“Independent regulation, shorn of government interference, has always been important in reconciling consumer and producer interest... public-private partnerships as a vehicle for economic development and change. Thus, I hope that this report is able to activate interest in this area and lead to some solid action in the near future”.

– **Montek Singh Ahluwalia**

Deputy Chairman, Planning Commission of India

“...regulatory authorities were created when the Indian polity felt...for the creation of regulatory authorities... from their political ministers — something that is also recommended in this report. The report is well written and importantly it comes out with practical recommendations, which must be adopted by the government”.

– **Pradip Bajaj**

Former Chairman, Telecom Regulatory Authority of India

“Regulation has potential benefits and limitations. It can facilitate or limit competition and innovation...can help or hinder regulatory bodies. This study sheds valuable light on the many and subtle factors involved in India. It deserves careful study”.

– **Stephen Littlechild**

Fellow, Judge Business School, University of Cambridge

“... there could not be a more appropriate time for this report to be published. Given the recent financial crisis, regulation plays an important role in checking market failures... hopes that the policymakers will take this report as seriously as it deserves”.

– **Vijay Kelkar**

Chairman, Finance Commission

“As India... from a ‘public sector & government dominated’ economy to an accelerating open economy increasingly integrated with the rest of the world...fair competition, must keep pace. In other words, consumer activism based on awareness and information...fair competition in the economy... volume encapsulates the pioneering work that CUTS is doing in that direction”.

– **Vijay Mathur**

Former Chairman, Airports Authority of India



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