Is India's regulatory system bust?

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- The head of the Atomic Energy Regulatory Board (AERB), the independent regulator for the nuclear power sector in India, reports to a bureaucrat in the government, the secretary of the Atomic Energy Research Commission (AERC) – in the context of the Fukushima nuclear disaster, the fact that the independent regulator in charge of the safety of the industry reports to the government can't be great news.

- In the context of the on-going investigation into the licensing scandal involving jailed ex-telecom minister A Raja, the telecom regulator (Trai) has filed an affidavit in the Supreme Court saying former telecom minister A Raja's ministry did not seek the mandatory recommendation from it on the 'need and timing' for new entrants way back in 2007. In other words, the regulator was bypassed, apart from its recommendations being cherry-picked.

Given the still-rapid growth in the telecom sector, the most oft-cited example these days of bad regulation, it is pretty obvious no picture you get – of regulation working perfectly or of regulation being completely subject to regulatory capture – is fully correct. After all, if regulation was so terrible, would the government have managed to get over Rs 1 lakh crore in the auctions for 3G and BWA licences, and would Vodafone offer to pay $5bn for its partner Vodafone's stake, and that too after it has asked to pay $2bn by the income tax authorities on its $11 bn purchase of Hutch's stake in what was then Hutch-Essar?

The correct analysis of India's regulatory structure is critical to the India growth story since all the sectors with independent regulators are those where significant amounts of investment have already taken place, and are needed in the years to come – according to the Planning Commission, India's infrastructure investment is projected to touch a trillion dollars in the next five years[1]. The Indian regulatory story, as this paper hopes to be able to show, is different in places, and has as many success stories as it has of abject failure; in short, it is a story of work-in-progress. It is also, in many parts, a reflection of the country's politics; regulators have often played to the tunes of the political class that appointed them – not allowing electricity tariffs to rise to account for increasing costs or not ordering open access though the Electricity Act demands this are good examples of this.

Given that the ongoing A Raja case is really about regulation, about whether then telecom minister A Raja ignored the Trai's recommendations, about whether he twisted other rules and regulations, the timing of a paper on Indian regulation couldn't be better. If the Trai recommendations were taken out of context[2], or if the telecom ministry is once

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[1] http://www.livemint.com/2010/03/23110611/India-needs-1-trillion-infras.html
[2] http://indiatoday.intoday.in/site/story/it-was-rajas-private-party-and-everyone-was-invited/1/120509.html

again playing games by not accepting Trai recommendations[1], or if the Trai is itself taking U-turns[2], this will certainly affect the future of investment in telecom in India.

Structure of the paper

This paper is divided into 10 segments. First, why do we even have regulation and independent regulators? Two, has the exercise been worthwhile? Three, are the regulators truly independent? Four, what powers do the regulators have? Five, how easy is it to dismiss the regulators? Six, is there any integrated policy in India that sets out principles in dealing with competition and regulation policies? Seven, are there any global lessons to be learnt when it comes to the functioning of independent regulators? The eighth section, which has some degree of overlap with sections 3 and 4 summarises some of the controversial decisions taken by regulators; the ninth deals with competition impact assessment and regulatory impact assessments and the last, the tenth, gives the final conclusions and policy recommendations.

Why do we need regulators?

Till the early 1990s, the commanding heights of the economy remained with the government and government-owned companies. All telecommunication services, whether through phones or satellite, were the exclusive preserve of government firms; all roads were built and maintained by government ministries or departments at the level of the Centre and of the states; oil exploration, drilling, refining and marketing were also a government monopoly, the list goes on. Since it was the government that was doing the running and the investment, there was no perceived need for a regulator, independent or otherwise. It is true, of course, that you'd still need someone to safeguard the interests of the consumer, whether an individual or a company, but no one was really thinking about the consumer in the shortage economy that India still was when Dr Manmohan Singh became the finance minister.

Dr Manmohan Singh's 1991 Budget, apart from what it did for delicensing, made two fundamental shifts in policy as far as infrastructure is concerned. One, it sought to achieve its large fiscal deficit reduction target by sharp reductions in capital expenditures – this meant that the larger share of new power plants, new telecom lines, and so on, would have to be constructed by the private sector, or not at all. Two, the overall philosophy, and not just in the infrastructure sector, was that the private sector was to be encouraged as it would contribute to efficiency gains that would benefit the overall economy.

Even at this point, not too much thought was paid to creating regulators, indeed the thought was that private sector firms could come in even within the existing framework of incentives – all that needed tweaking, the thinking went, were the specific incentives. So, if a plant load factor-based incentive scheme was designed for private power firms, they would come in and invest. A host of foreign firms even came in through what was

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[1] http://www.financialexpress.com/news/Govt-Trai-play-lawyer-lawyer/820566/
[2] http://www.financialexpress.com/news/FE-Editorial---Trai-bats-for-Raja/836588/

then called the fast-track independent power producers process. All of them came a cropper for a variety of reasons, one of which was the lack of an independent regulatory process – while the Maharashtra state electricity board had a litany of complaints as far as Enron-Dabhol was concerned, the IPP also felt it had been shortchanged by the process. An independent regulatory process at this stage, for instance, would have brought in public hearings and tried to assess whether the electricity costs were reasonable, whether the MSEB was right in saying the Dabhol plant was not delivering because of faulty turbines … That's why Enron's shareholders finally went in for international arbitration when the plant was shut down and the government eventually settled privately. Indeed, many argued the reason why the initial plans failed is because India's electricity reforms began at the wrong end – in generation, as opposed to distribution – and this is what the later reforms attempted to fix. Once power thefts fall, the impact of higher-cost new power generation facilities is easier to absorb.

By 1994, the government decided to open up the telecom sector to private firms, and that's when the TRAI was born. Since all phones, at that point, belonged to PSU firms, no new telco stood a chance if its subscribers couldn't connect with the subscribers of the PSUs. This is the Trai's biggest achievement till date – coming up with a mandatory interconnect regime with an Interconnection Usage Charge (IUC) where the charges are fixed by Trai and can't be manipulated up or down by any telco – and ensuring it has held up all these years. Without interconnection, you'd have no private telecom today. Once the Trai mandated costs for interconnect, it then did the same for long distance telephony, driving down long distance tariffs to a small fraction of what they used to be.

In the initial years, Trai was both the high court and the Supreme Court, in the sense that if you lost an appeal in the Trai you had to go to another arm of the same Trai to appeal against it – naturally, the chances of success weren't too great. In 1999, the government changed this to ensure the appellate body was a different one, the Telecom Dispute Settlement and Appellate Tribunal (TDSAT). It's another matter that the government also used the opportunity to dissolve the first Trai whose chairman had begun to question the government one time too many.

Over a period of time, regulators were appointed for ports, electricity and even airports. The World Bank, as Navroz Dubash puts it in *Institutional Transplant as Political Opportunity: The Practice and Politics of Indian Electricity Regulation*[1], "served as the dominant vector for transmission of the restructuring ideas to India". In 1993, while talking of the policy changes needed by it to start lending to various sectors, it said, "…the Bank will require countries to set up transparent regulatory processes that are clearly independent of power suppliers and that avoid government interference in day-to-day power company operations". Still later, while negotiating for the Orissa power loan, Dubash quotes the World Bank as saying the role of the regulator was "...to ensure the sustainability of tariff reform ... *inter alia* to attract sufficient private investment and protect the interests of consumers … to insulate Orissa's power sector from the government and ensure its autonomy". In other words, the main focus was to send out a signal to investors about the credibility of the investment regime – the real lesson, still

[1] http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1278008

not learnt however, is that the principal job of regulators is to send out signals that the system is alive to the interests of users, not just investors. By 2003, the trend starting with Orissa had strengthened into a flood and India got a brand new central act, the Electricity Act (2003) was passed and endowed regulators with a range of responsibilities including tariff setting, issuance of licenses, definition and enforcement of standards, promotion of renewable energy, among others.

It wasn't just India, one study found that while around 5 new regulators were created each year in the 1960s through the 1980s, this rose around four times in the next two decades – it reached a peak of 40 new agencies each year between 1994 and 1996. Independent regulation became the new global consensus, and India didn't want to be found wanting.

As the Planning Commission put it in its paper on regulation of infrastructure (http://planningcommission.nic.in/reports/genrep/infra_reglawl.pdf), regulation "may be broadly understood as an effort by the state 'to address social risk, market failure or equity concerns through rule-based direction of social and individual action.' Economists regard economic regulation by the state as necessary only when a natural monopoly exists, or where a dominant player abuses monopoly power or to overcome some other form of market failure. Economic regulation is seen to be that part of regulation which seeks to achieve the effective functioning of competitive markets and where such markets are absent, to mimic competitive market outcomes to the extent possible." Sadly, apart from telecom, few other sectors which have regulators have seen the presence of robust competition, surely the greatest indictment of the success of the process of independent regulatory agencies.

Have regulators delivered?

For each positive result from regulators, there is an equally strong example of where they've got it wrong. It is important for us to learn from this, but equally important to keep some perspective. After all, it took nearly two decades after it began working with independent regulators for the UK to come out with a Regulatory Reform Act in 2001 and the Better Regulation Commission came about only in 2006. Reform, and regulation, are always work in progress.

Later sections – *Are the regulators independent*, and *Case studies* – will provide more details of regulators going astray. There are several reasons for it. Governments choose the regulators and they are also prone to capture over time. Call it a coincidence, but more regulators than should be the case have tended to give recommendations that the government of the day has wanted. This has been so for a variety of reasons, such as how regulators are chosen and how they can be given policy directions by the government and even how easily some can be dismissed[1].

[1] http://bsl.co.in/india/news/telecom-secretary-heads-for-tdsat/301496/, http://businessstandard.co.in/india/news/telecom-tribunal-in-race-against-time/295785/, http://www.indianexpress.com/news/acts-of-independence/703632/0, read Regulatory Roulette, India 2009, BS Books

Other reasons have been the fact that in many sectors, the principal actions had been taken before the regulators were set up. The Airport Economic Regulatory Authority (Aera) was set up after major airports in Delhi/Mumbai/Hyderabad/Bangalore were set up (Aera is still battling some of the huge favouritism cleared by the government); the Delhi Electricity Regulatory Commission's hands were tied to an extent because the Delhi government entered into a 5-year contract with BSES and NDPL on what rates of return were to be guaranteed to them; the Petroleum and Natural Gas Regulatory Board (PNGRB) has been set up without allowing it to regulate prices of various non-sensitive petroleum products even though this is within its remit.

The most obvious success of regulation by independent regulators, as has already been pointed out, is that of interconnection and the interconnection usage charge (IUC). IUC was critical if India's telecom sector had to take off. While IUC allows customers from one network to speak to customers on another, what follows from this is roaming where customers of one telco can use another telco's network to remain connected while travelling – you can have a Bharti Airtel mobile in Delhi and travel to Assam where there is only a Vodafone network and still remain connected, in return for a fee that Bharti Airtel will pay Vodafone on your behalf. And while roaming works on outstation network, Mobile Number Portability that has been introduced, allows you to do the same within the city – a Bharti Airtel customer can retain her number but actually get her services from Vodafone. All of this can take place only when regulators lay down certain rules/principles and then ensure the industry adheres to them.

In the case of electricity, the Electricity Act tried to do the same with its concept of Open Access, which allows a consumer in South Delhi to get electricity from NDPL instead of from BSES even though she is a BSES customer. In this case, again at a rate determined by the regulator, NDPL pays BSES a certain charge for using its electric wires to deliver electricity to its former customer. While the Trai has been able to enforce interconnect and roaming (except for BSNL where it has had no success), electricity regulators have been rather unsuccessful – in one recent case, the Union power secretary has asked the Appellate Tribunal for Electricity to direct the state regulators to give information on how often they have used their suo motu powers to hike tariffs[1].

In his *The Practice and Politics of Indian Electricity Regulation*, Dubash points out that while the Karnataka Electricity Regulatory Commission (KERC) issued 23 directives in its very first tariff order, 19 were either challenged or ignored – while the regulator threatened to withhold further tariff hikes, it never really enforced this. The Andhra Pradesh Electricity Reforms Commission (APERC) issued 12 directives in FY 2001, of which only one was complied with and six partially complied by the following year. By FY 2005, 10 directives remained uncomplied with or only partially complied with, but the APERC had ceased tracking and monitoring compliance.

The very first central electricity regulator, SL Rao, the head of the Central Electricity Regulatory Commission (CERC), however, was able to enforce several other rules that

[1] http://www.financialexpress.com/news/apex-power-regulator-asked-to-pull-up-sercs-over-tariff/784345/

have made it much easier for companies to do business in India. The introduction of the availability based tariff (ABT) lowered the incentive payments got by PSUs like NTPC and lowered tariffs[1]. The introduction of strict and automatic penalties has, similarly, meant India no longer has the rampant problems of grid indiscipline (states would routinely draw extra power from the grid during harvest season and, as a result, ensure the grid collapsed).

State regulators also had some successes. While paring the expenses planned by the three power companies in the capital on various occasions, the DERC also found evidence that the two BSES firms had overcharged Rs 533 crore of capital expenses on a total expense of Rs 1,233 crore – given the small equity base of the company, this represents a gargantuan return on capital[2] . The regulator's decision to help keep tariffs lower (more on this in the next section) by creating what are called 'regulatory assets' (a part of expenses are not considered for the purpose of calculating tariff hikes, but are put aside as 'regulatory assets' and a nominal interest is paid on this) has created a serious crisis in the capital and a power hike that cannot possibly be accepted by anyone.

Dubash points out that in one year, the KERC returned all seven proposed schemes on grounds such as procedural errors, unrealistic implementation schedules and expenditure targets. In its scrutiny of a High Voltage Distribution System (HVDS) project, the APERC pointed out how incorrect assumptions on numbers of unauthorised connections led to an overestimate of savings from the project.

The biggest benefit, of course, is the fact that regulatory bodies mean the power of appeal. If, in the past, the government turned down your application to set up a power plant, that was that. There was no appeal. How could you, you didn't even know why the application was rejected. In the regulatory process, every recommendation/decision has to be reasoned. So each decision can be appealed.

The box, from the Planning Commission[3], summarises the main powers available with regulatory bodies in the country today.

The part of Airports in the box below needs to be changed to include the setting up of AERA, but I can't do it since I've cut and pasted this

[1] http://www.indianexpress.com/ie/daily/20000326/ied25063.html
[2] http://www.business-standard.com/india/news/delhi%60s-discom-disaster/318456/, http://articles.timesofindia.indiatimes.com/2009-10-10/delhi/28063992_1_derc-bses-rajdhani-discom-bses, http://www.derc.gov.in/ordersPetitions/orders/Tariff/Tariff%20Order/MYT_TO_07/distribution/Complete%20Order/BRPLannexure.pdf
[3] http://infrastructure.gov.in/pdf/approach_to_regulation_of_infrastructure.pdf

Sector	Relevant Statutes	Regulatory Authority
Transport	No sectoral regulator	
• Roads	- National Highways Act of India, 1998 - Central Road Fund Act, 2000 - The Control of National Highways (Land and Traffic) Act, 2002	No regulatory authority. NHAI acts as the regulator as well as the operator. States have floated their own corporations or agencies. Investors have no recourse to an independent regulator.
• Rail	- Indian Railway Board Act 1905 - Railways Act 1989	Railways act as the operator as well as the regulator. Investors have no recourse to an independent regulator.
• Airports	- Aircraft Act 1934 - Airports Authority of India Act 1994	AAI is the operator as well as the regulator. Director General of Civil Aviation regulates safety and technical aspects only. Investors have no recourse to an independent regulator. Proposal to set up a regulatory authority.
• Ports	- Indian Ports Act 1908 - Major Port Trusts Act 1963	Tariff Authority for Major Ports (TAMP) has the sole function of tariff setting. Investors and users have no recourse to an independent regulator on other matters such as dispute resolution,

		performance standards, consumer protection and competition.
Energy	No holistic regulator	
• Power	- Electricity Act 2003	Regulatory commissions at Centre and States with very extensive functions and powers. Track record not as yet convincing.
• Oil & Gas	- Petroleum and Natural Gas Regulatory Board Act 2006. - Petroleum Act 1934 - Petroleum and Minerals Pipelines (Acquisition of Right of User in Land) Act, 1962	The Petroleum and Natural Gas Regulatory Board will regulate the refining, processing, storage, transportation, distribution and marketing of petroleum products. Director General of Hydrocarbons licenses and regulates the exploration and optimal exploitation of hydrocarbons.
• Coal	- Coal Mines Nationalisation Act 1973 - Coal Mines Conservation and Development Act 1974	No regulatory authority. Control by ministry and through nationalised corporations.
Communication	- Communication Convergence Bill 2001	The draft Bill proposes a sectoral regulator. It is currently being reviewed in consultation with stakeholders.
• Posts	- Indian Post Office Act 1898	No regulatory authority. Proposal to create a new regulatory body. A draft amendment bill is open for consultation.
• Broadcasting	- Prasar Bharati Act 1990	Private participation allowed in the FM radio sector through licensing. No regulatory authority exists for radio and TV broadcasts. A draft bill is currently being subjected to consultations with stakeholders.
• Cable TV	- Cable Television Networks Regulation Act 1995	Provides for the regulation of carriage and content of cable TV broadcasts. TRAI has the responsibility of tariff setting and interconnection for cable operators.
• Telecom and Internet	- Telecom Regulatory Authority of India Act 1990	TRAI has been given the responsibility to regulate telecom and internet service providers.

Are the regulators independent?

If regulators are going to decide on the rules, the question to ask is whether the regulators are good and whether they're independent. Since, in a democracy, the executive is responsible to the electorate through the minister who is responsible to Parliament, regulators cannot be fully independent either. So, in telecom for instance, the regulator has the power only to recommend. Similarly, the selection of regulators which is done by the government is usually influenced by the line ministry.

Given the frequent allegations of impropriety by ministries – former telecom minister A Raja has been accused of distorting the Trai's recommendations, of changing the definition of First Come First Served to help some companies – the Planning Commission has plumped for giving regulators more powers. The Planning Commission's suggestion is that regulators be directly accountable to Parliament, that their accounts be audited by the C&AG, and that all licensing and monitoring of licences be done by the regulator. The ministry will lay down policy and targets and, within this, it will be the job of the regulator to come out with appropriate licensing rules to help achieve this. Each regulator will make periodic reports to the legislature and various legislative sub-committees will, in turn, examine the performance of the regulator and its reports/recommendations. As part of his response to the Anna Hazare crisis, Prime Minister Manmohan Singh accepted the Planning Commission's suggestions and said the government planned to bring in a legislation on this – since he stressed the legislation would be to make regulators more accountable and didn't mention taking away powers from line ministries, however, it's a good idea to wait and see the final contours of the legislation.

Under the current law, however, regulators have few powers to implement the law. So, if a telco does not do what the Trai prescribes – say, honouring an interconnect regime – all the Trai can do is to file a case in the lower courts and wait for the court to enforce them.

With few exceptions (SL Rao at the first CERC and Justice Sodhi at the first Trai), regulators have tended to be former bureaucrats, often enough from the same line ministry. So, Dr JS Sarma, the current Trai chairman is a former telecom secretary, as was his predecessor Nripendra Misra. PK Basu at the CERC was a former power secretary. Pradip Baijal was not a telecom secretary, but had been the disinvestment secretary under Arun Shourie and Shourie made him Trai chief when he was the telecom minister. In most cases, the regulators have delivered what the political masters wanted (for a fuller exposition, please see *Regulatory Roulette*, Business Standard India 2009).

Nor is packing the benches restricted to just the regulators. In the case of the Telecom Dispute Settlement and Appellate Tribunal (TDSAT), in 2007, the Ministry of Communications wanted members that TDSAT chief, Justice Arun Kumar, did not agree to. Justice Kumar felt that the outgoing BSNL chief, A K Sinha, could not become a member as there were a large number of cases at the TDSAT against BSNL. This face-off resulted (briefly in 2007) in a situation when the TDSAT was unable to function because it did not have enough members.

In 2000, under MS Verma, the Trai came out with inexplicable recommendations to the effect that firms which had only fixed land licences (on which the licence fee was much lower) could offer mobile services through what was called Wireless in Local Loop (WiLL). This was essentially a facility that allowed cordless phones to now work over long distances – this gave firms like Reliance Infocomm a backdoor entry into the mobile business. In 2003, when it was clear Infocomm was badly abusing this WiLL's limited mobility to offer full-blown mobility (more on this later), and the government was under pressure to curb Infocomm, the new Trai chief Pradip Baijal came up with a piece of fiction called the Universal Access Service Licence (UASL) and when this wasn't enough, it was issued to Infocomm on a back-dated basis.

The newspapers, the CAG report and the CBI chargesheet are full of stories of how A Raja distorted Nripendra Misra's recommendations as Trai chairman, but even Misra would admit they could have been interpreted in any way. But leave that aside, when Trai gave his recommendations, all existing players were eligible for more spectrum under the subscriber-linked-policy for additional spectrum. Even though Trai did not have the mandatory consultations on this, it hiked the subscriber criterion 2-5 times, in some cases even 8 times – this meant the Bhartis and Vodafones were no longer eligible for more spectrum, and created the necessary spectrum-space for A Raja to play his mischief. And Trai opened the door for what was called 'dual technology' licence which gave firms like Reliance Communications and Tata Teleservices an unfair advantage since they already had mobile phone licences (CDMA mobile).

As a member of the Telecom Dispute Settlement and Appellate Tribunal, JS Sarma upheld A Raja's decision to give Reliance Communications a dual technology a day before the policy was even announced ("early completion of formalities" is the term the TDSAT used). When Sarma became Trai chief, he recommended giving another 1.8 MHz of spectrum free to the firms A Raja benefitted. Trai also decided to recommend that the incumbents, who had got extra spectrum beyond 6.2 MHz as part of existing government policy over the years (and who have been paying for this since the policy was that annual spectrum charges go up with more spectrum) should be asked to pay a big one-time fee for it. Not just at any rate, but at 1.3-1.5 times the rate paid in the 3G auctions. Since the cost of an all-India 3G licence was around 10 times what A Raja's favoured firms paid for their 2G licences, Trai is recommending older firms like Bharti/Vodafone/BSNL/MTNL pay 13-15 times what A Raja's beneficiaries paid per MHz of spectrum.

Powers of regulators

Despite so many years of having independent regulators, there are still no uniform powers across regulators. Various electricity regulators have large powers to make rules, issue licences, enforce discipline, impose penalties etc. The telecom regulator on the other hand has only recommendatory powers and the port regulator, as we will see, has even rules which determine how profits are to be shared. The telecom regulator has promotion of competition as a function, but this is not a duty of other regulators. Tenures of regulators also differ widely and, according to the Planning Commission document, in the case of electricity appellate tribunals, members can be reappointed for another 3 years after their original terms are over – in no other case is this allowed. And, has been pointed out before, several sectors like roads and railways have no regulators at all.

In 1999, the NDA government dismissed Justice Sodhi's Trai under the guise of coming up with an independent appellate mechanism. The decision to bring in a separate appellate mechanism in the form of the Tdsat was correct, but surely this didn't require the Trai to be dismissed. It may have been a coincidence that Justice Sodhi's Trai thought the government had no right to issue MTNL a mobile licence without getting a recommendation from it.

The governments that followed weren't too different in how they treated regulators. In the United Progressive Alliance, Dayanidhi Maran tended to ignore the Trai recommendations and, on other occasions, he just announced changes that should logically have been referred to Trai first. Raja, as is well-known, was accused of cherry picking Trai's recommendations.

Indeed, when the then Trai chief Misra wrote to various telecom secretaries protesting how his recommendations were being distorted, Sidharth Behura (currently in jail along with A Raja) told Misra that there was little point carrying out any further conversation with him. Of course, Trai recommendations were required under the 'need and timing' clause each time a new licence was to be issued, Behura admitted, but the 122 licences issued by the government weren't new – sure, they were new licences, but they were under an existing category of licence!

Behura's behaviour, interestingly, is not unique. In 2008, the then Trai chief wrote to the telecom secretary to protest about how Reliance Infocomm was abusing its licence provisions. Reliance Infocomm had a fixed land licence which allowed a company to offer what is called 'limited mobility' or Wireless in Local Loop (WiLL) mobile services. Unlike the case with cellular mobile, a WiLL user could not roam with his mobile, could not take it from Delhi to Mumbai. Yet, thanks to the way Reliance had configured its network, its subscribers could. When Reliance Infocomm was setting up its network, based on the equipment it had ordered, it was obvious what it had in mind, so Trai chief MS Verma wrote to telecom secretary Shyamal Ghosh asking him to stop this from happening. Ghosh, like Behura, told the Trai chief to keep quiet and not raise the matter again.

In the Infocomm case, the TDSAT gave a split verdict in August 2003. While the head of TDSAT, the only judicial member, ruled that the WiLL service had to be stopped as it was illegal, the other two members ruled that while the services should not be stopped, a method should be found to ensure that the mobility offered was restricted (this is what MS Verma had been petitioning Shyamal Ghosh about more than 30 months earlier!). The government, however, refused to implement the order and, in October 2003, as the new Trai chief Pradip Baijal gave the government the solution it needed. He came up with a new policy called Universal Access Service Licence under which, for a fee that equaled that of the cellular auction in 2001, WiLL fixed land licence firms could also offer mobile services.

Another piece of fiction was brought in here. The regulator argued that had Reliance been issued this licence when it began its illegal operations, the operations would have been legal. So why not pretend Reliance got the licence earlier, but had forgotten to pay the licence fee – so a penal interest could be charged for this lapse! The penalty and the additional license fee added to around Rs 2,000 crore. Reliance had, in the meantime, built up a big subscriber base by virtue of the fact that it offered (till then, illegally) mobile services, and the value of this subscriber base was far greater than the penalty imposed.

The Nhava Sheva International Container Terminal (NSICT) story is another good example of how governments choose to regulate regulators. When NSICT was being privatized, the government called for bids and the company that promised to share the highest proportion of revenues with it won the contract. The revenue-share could not be taken into account as an expense by the regulator – if it was, anyone could win a bid by offering to share 99% of topline revenue with the government. The NDA government, however, directed TAMP to consider the revenue-share royalty as a cost. In 2005, the UPA government formalized this, stating that while royalty payments would not be treated as costs for deals struck after July 29, 2003, they would be treated as a cost for deals before this date if the royalties resulted in a loss for the new concessionaires (read Bharat Salotra at http://infrastructure.gov.in/pdf/NSICT.pdf for full details).

Indeed, the regulations are made in such a way that the regulator's powers are severely circumscribed. Guideline 2.4.1 of the rules which determine TAMP's functioning states 'This would, therefore, naturally exclude any comparison of an operator … with … different operators.' Guideline 2.13, which deals with unforeseen profits of the type received from traffic projections exceeding the actuals, states that a company gets to keep half of these.

Tenure/dismissal of regulators

After the power to hand-pick regulators and then to ignore them or give them directives (the Delhi government was pulled up by the courts recently for giving the Delhi Electricity Regulatory Commission directives to keep on hold its plans to reduce electricity tariffs in the capital), the next big power the government has over regulators is of dismissal.

After its initial poor (from its point of view) experience with the telecom regulator where the government had to dissolve the Trai, it has made sure it doesn't repeat the same mistake with other regulators. The provisions of the bill introduced to set up the airports regulator, for instance, provides for its easy dismissal by the government, dependent only on an internal inquiry. In the case of the appellate body, by contrast, the chairman and members can only be dismissed after a reference is made to the Supreme Court. The same internal inquiry is sufficient to dismiss the newly-appointed petroleum regulator.

Integrated policy

There is little uniformity in the powers of regulators. Electricity regulators have more powers than the port or the telecom ones, and their tenures also differ greatly (from 3 to 5 years). The selection process differs as does the power to dismiss them. In addition, there are sectors – coal, railways, post and telegraph, roads – that don't even have regulators. One immediate policy solution is to have sectoral regulators, for energy, communications and transport. There is little point, for instance, in allowing free pricing of inputs, as was envisaged for the gas sector, if the end product (electricity) is to have its prices regulated. Ideally, there should be one regulator for energy (electricity, coal and oil&gas could be subsumed into this), one for communications (telecom and posts & telegraph) and another for transport (roads, rail, airports, power, ports).

Clearly, India needs a proper solution, including that of an overlap between regulators (the Competition Commission oversees M&As, but then so do some individual regulators). Similarly, as in the case of the roads sector, the absence of standardized contracts and bidding procedures, which can be enforced by a regulator is a big disadvantage – there can be little doubt, the absence of good contracting practice is something that reduces the regulator's power to regulate to a considerable degree.

Global lessons

Regulators in the US have been created by Congress and, as in the case of India, they are not uniform in either scope or design. But regulatory agencies are closely supervised by Congress which ratifies appointments and scrutinizes each action through the committee system. Regulators can create and enforce rules, fine and even jail people for violating their regulations.

In the UK, there was an overlap between various regulators in the 1980s and 1990s and, unlike in the case of India, the Planning Commission paper points out, some of the regulators' term and autonomy are not necessarily enshrined in the law. For example, the electricity and gas regulator has no statutory guarantee relating to its terms or conditions of service. Since the mid-1990s, however, the government has tried to undertake regulatory reform and multi-sectoral regulators – in gas/electricity and telecom – have been set up. The Regulatory Reform Act of 2001 required regulators to develop a code of practice which encodes regulatory procedures and enforcement. A Better Regulation Task Force oversees the implementation of the Act and establishes best practices in the sector (in 2006, this got converted into a permanent body, the Better Regulation Commission). This means regulators need to, by law, do impact assessment reports of all existing rules and when new ones are added or old ones deleted. The Utilities Act 2000 regulates three utilities industries by specifying precise sectoral goals to be achieved by each regulator. It also streamlines the appointment and dismissal of regulators, their accountability to Parliament and the regulatory processes they adopt.

Case studies[1]

(i) UASL

In the mid-1990s, technology had improved enough for fixed land license firms to be able to just lay a copper line till a central point in a neighbourhood, and then offer ‘last mile’ access to individual homes through wireless. This meant the firm didn’t have to dig lines in congested neighbourhoods. By the late 1990s, this ‘last mile’ could extend to 25 miles, such was the advance of technology. In 2001, taking advantage of this, the Trai recommended and the government accepted, that fixed land license firms be allowed to offer what was called Wireless in Local Loop (WiLL) or ‘limited mobility’ services on their fixed lines – no additional licence fees were asked for, and the commercial terms were also more favourable for WiLL mobiles (which is why calls on them were cheaper than on cellular mobile phones).

Even so, customers seemed to prefer cellular mobiles. One reason was that customers could ‘roam’ on cellular networks – the key to this was the architecture of cellular phone networks. The Trai recommendation on this specified that the architecture of WiLL mobile networks be different, that they didn’t have what was called a Mobile Switching Centre (MSC). The reason for this was a simple one, cellular mobile firms had paid a licence fee that was four times that paid by the fixed land licence ones, so allowing them to offer full-blown mobile services was unfair. Yet, when Reliance Infocomm set up its WiLL network, it installed an MSC. The cellular operators protested, and in January 2001 the Trai chief MS Verma wrote to Telecom Secretary Shyamal Ghosh asking him to ensure Reliance was stopped – this was many months before Reliance began to offer its service commercially. Ghosh asked Verma to keep quiet, and didn’t do anything.

The Cellular Operators Association of India went to the TDSAT which gave a split verdict in August 2003. While the head of TDSAT, the only judicial member, ruled that the WiLL service had to be stopped, the other two members ruled that while the services should not be stopped, a method should be found to ensure that the mobility offered was restricted. The government, however, refused to implement the order and, in October 2003, came up with a new policy recommending unified access. This allowed the WiLL mobile players to offer full mobility after paying a license fee equal to that paid by the most recent cellular licensees (who were awarded the license in an auction a few years prior to this). The penalty plus license fee added up to around Rs 2,000 crore. Reliance had, in the meantime, built up a big subscriber base by virtue of the fact that it offered (till then, illegally) mobile services, and the value of this subscriber base was far greater than the penalty imposed.

(ii) From Tata Tele to Tata Sky

Two players, the Tatas and then telecom minister Dayanidhi Maran, had interests beyond telecom – the Tatas ran TataSky and Maran’s brother ran Sun TV. In 2006, Tata Sky approached Sun TV to buy its feed; there was a dispute on the commercial terms and the

[1] For a fuller version, read Regulatory Roulette, Business Standard, India 2009

matter went to the TDSAT which ruled that, according to the rules, Sun would have to supply the channels Tata Sky wanted. Since Sun refused to comply, the TDSAT was approached again[1].

During this period, the telecom ministry threatened to encash Tata Group firm Tata Teleservices' bank guarantees for not paying microwave access fees. Tata Tele argued the ministry was acting arbitrarily and had actually changed the computation of the fees. It seemed pretty obvious to the TDSAT that the ministry was arm-twisting the Tatas for some non-telecom reason. When the TDSAT was very harsh on the telecom ministry lawyer, he said the ministry would examine the Tata arguments; the TDSAT said that the Tata bank guarantees would not be encashed until it examined the matter. The matter then died a natural death.

(iii) New 2G licences

Enough has been written about the Trai recommendations in 2007 on issuing new licences and how A Raja distorted these. Indeed, as soon as he realized the recommendations were being distorted, then Trai chief Nripendra Misra wrote several letters of protest but to no avail. As part of these recommendations, Trai also said existing WiLL-mobile phone firms could be given a GSM-cellular licence under what it called 'dual-technology' – in other words, while most telcos offered just one type of service – GSM-cellular – these firms could offer both WiLL-mobile as well as GSM-cellular. Since each service was allotted a certain amount of spectrum which was in short supply, getting two mobile licences was a big advantage. In order to try and balance the recommendations a bit, it recommended higher spectrum charges for 'dual-technology' firms; said there should be no M&A till the newcomers, who were getting their licences at bargain-basement rates, met their obligations to rollout their networks.

A Raja then gave out licences, in 2008, at the same prices they were sold at in 2001; two of the firms sold off large parts of their equity at a huge profit as Raja didn't enforce the M&A suggestions; and he didn't accept the higher licence fee recommendations for dual technology firms either. Indeed, he gave Reliance Communications its dual-technology licence a day before he announced the policy, a decision that the TDSAT later upheld while terming this "early completion of formalities".

(iv) NSICT

The Tariff Authority for Major Ports (TAMP) regulates tariffs based on the costs given by the ports and on the likely traffic. Though each port promises to share a certain proportion of topline with the government, this is not taken into account as a cost – this was logical, and it was also precedent since, in 2002, TAMP refused to allow Chennai Container Terminal Limited to expense its revenue-share royalty payments. In 2005, however, the government told the TAMP it would have to treat these as costs; in 2005, the government made a distinction, and said that while royalty payments would not be treated as costs for deals struck after July 29, 2003, they would be treated as a cost for

[1] http://www.business-standard.com/india/news/sunil-jain-broadcast-this-call/282103/

deals before this date if the royalties resulted in a loss for the new concessionaires. In this case, the revenue-share bid of the second bidder would be taken into account.

TAMP, however, bettered even this and, in August 2005, allowed the Nhava Sheva International Container Terminal (NSICT) to expense its royalties even though their inclusion did not lead to a loss. This will allow NSICT to, over its 30-year concession, benefit by $1.46 billion. The other way in which TAMP helped NSICT is through the manner in which it fixed tariffs. Since tariffs are based on costs and the total traffic, a higher traffic will result in higher profits than the TAMP projected. Logically, the extra profit should be taken into account while determining the tariffs for the next year. The TAMP guidelines, however, say only half the extra profit can be recouped the next year. Actual traffic for NSICT were two thirds higher than those forecast by TAMP while fixing their tariffs.

(v) Pre-empting policy

If this wasn't bad enough, the government didn't bring in regulators while finalizing its biggest deals in many areas. So, the airports at Delhi, Mumbai, Bangalore and Delhi were privatized without their being a regulator which could examine the costs given by each operator. The sharp hikes in costs for some of the players have been quite controversial. In addition, in the case of the Delhi airport, while the concessionaire won the bid by promising to pay 46% of its topline to the government, it later changed what was the definition of the topline. It sought to take very large interest-free deposits on the commercial property that was part of the airport project, refused to share this with the government on grounds this was a liability and not an earning – based on certain reasonable assumptions by the author, this would reduce the government's share by 20-25%.

Regulatory Impact Assessment

Telecom is the only sector where, despite all the problems, competition has really flourished. From just two private phone providers in addition to the government-owned BSNL and MTNL, there are now 12-14 firms offering mobile phone services in most telecom circles in the country. This is probably counter-productive as it lowers profitability with no commensurate increase in competition. A more liberal M&A policy, when it is brought in, will help, but the interesting thing here is that Trai regularly monitors the level of competition in the industry through the HHI Index.

The same level of competition that exists in telecom, it is true, cannot be introduced for all sectors. Another airport can be built to compete with an existing one, but only after the existing airport's operations have reached full capacity; there is also a minimum distance stipulation between airports. But few regulators, other than Trai, are actively doing their best. In the case of Tamp, the law prohibits benchmarking with other ports. In the electricity sector, Electricity Act 2003 planned for competition through what's called Open Access. Similar to number portability, Open Access allows a customer of firm X to buy power from firm Y instead using the same powerlines that go into her house. Since there is a high level of cross-subsidisation as well as theft, Electricity Act 2003 provides for payment of surcharges by Y to X. So far, no state electricity regulator has enforced this provision.

Conclusions

It is tempting to conclude that the idea of independent regulators isn't working. As we've seen, regulators are handpicked by the government of the day and have, too often to be a coincidence, delivered just what their political masters wanted. If Pradip Baijal gave Arun Shourie the solution he needed to regularize Reliance Infocomm's licence, the electricity regulator in Delhi ensured the government didn't have to suffer the consequences of tariff hikes by creating 'regulatory assets' (a part of expenses are not considered for the purpose of calculating tariff hikes, but are put aside as 'regulatory assets' and a nominal interest is paid on this) – this has created a serious crisis in the capital since not allowing regular power hikes means the hike required now is so high that is cannot possibly be accepted by anyone. While a new regulator hiked tariffs in August 2011, to keep this to a minimum, he has not considered the revenue shortfalls of the power distribution firms for 2010-11, but plans to revisit this later. In Orissa, the power regulator allowed the state to charge other states in the country who were buying power from the state an amount that was many times more than what customers paid inside the state – and this extra amount was then used to subsidise customers within the state.

Part of the problem lies in the manner in which regulators are picked – in even the case of the high-profile CVC appointment, where the Leader of the Opposition (LOOP) was part of the selection panel, we saw how the government had its way despite the LOOP's written dissent, though it's a different matter the government suffered a big loss of face when the Supreme Court struck down the appointment. Another part of the problem lies in the fact that almost all regulators are former bureaucrats even today – in the early days, there was perhaps no other option given only public sector organizations were in charge of the sectors that were being opened up, so bureaucrats were probably the only people who had the required expertise.

There is also the problem that many sectors (roads, railways, post and telegraph, mining) don't have regulators; in several other cases (airports), the regulators were brought in after privatization; in others like the oil sector, the regulator (PNGRB) hasn't been fully empowered.

Yet, as has been pointed out, there are big successes of regulation as well. These include the IUC in telecom; the availability based tariff and the use of the Unscheduled Interchange tariffs to ensure grid discipline in the power sector; the USO levy as a means to fund rural telephony in a seamless manner …

Several suggestions have been made, most notably by the Planning Commission, on how to improve/fix the system. One suggestion is to shift more discretionary powers from the line ministries to regulators who report directly to Parliament; to have each legislation by a regulator scrutinized by a parliamentary sub-committee; and the regulator's account to be examined by the CAG. Line ministries will issue only policy directions and it will be the regulator's job to come out with laws to make this happen; part of the regulator's job will be to facilitate competition (its annual reports to Parliament will give details of how it has fared on this account). As mentioned earlier, the prime minister has said the government is actively looking at this proposal as part of its attempt to fight corruption.

The A Raja case would be a good example to use to illustrate how the proposed new regulatory system would work and how it would prevent the kind of outcome we saw on January 10, 2008 and the subsequent investigations/arrest that occurred. If the Trai was doing the licensing and the policing of the licensing functions, first and foremost, no licences would have been issued in the manner they were. For one, there was a Cabinet decision in 2003, at the time of the issue of Universal Access Service Licences (UASL), which said that all future licences would be issued through the auction route only. So, once the policy had been laid out, the Trai would have had to follow that. If it didn't, Trai would have to explain why.

Similarly, the arbitrary September 25, 2007 cut-off proposed by Raja for considering applications for licences – in January 2008, he said only applications received till September 25 would be considered, effectively shutting out hundreds of applicants from the licensing process – as well as the change in the first-come-first-served norms would have to be explained by Trai. And there would have to be a prior public consultation on all of this.

If despite all of this, the licences had still been issued for some reason, the Trai would have had to follow up on the implementation of their conditions. So, when a year was completed, the Trai would have had to ensure the licencees that did not roll out their networks were asked to hand back their licences after paying appropriate penalties for not rolling out in even the first 52 weeks. Interestingly, even though it's been several months since Trai first recommended cancelling licences for not meeting rollout obligations, the government refuses to accept this.

And if, for some reason, the Trai didn't follow this procedure, Parliament's sub-committee that oversaw the Trai would pull it up for not doing its job. And, to ensure the Parliament sub-committee got to know the Trai had been derelict in its duty, the CAG's annual audit would have pointed this out.

Many of these suggestions are in keeping with what has been happening in the UK. The Utilities Act of 2000 makes consumer protection the primary duty of the regulator. This also makes it vital that Indian regulators pay special attention to developing capacity among consumer bodies. To some extent, this is happening. Dubash reports that the tariff order of FY 2005 evoked 70 responses in Delhi, 302 in Andhra Pradesh, and 5,170 (of which most were duplicates sent in by farmers) in Karnataka. Industry, says Dubash, accounted for just 10 per cent of responses in AP, 17 per cent in Delhi and a high of 40 per cent in Karnataka. In the 2006-07 tariff order, a total of 330 objections were filed in AP -- 302 were "substantive" pertaining to issues that had to do with details of the tariff process; the largest number, 106, were by individual consumers, but substantial numbers of comments, in each case between 25 and 70, were filed by political parties (42), public entities (28), industry (36), unions (68) and consumer organizations (43).

Readers would do well to read the UK's House of Lords' study The Regulatory State: Ensuring its Accountability (http://www.publications.parliament.uk/pa/ld200304/ldselect/ldconst/68/68.pdf). After concluding the regulation is not an end in itself, the Lords have an elaborate procedure to ensuring accountability – an interesting idea worth emulating is that before any change is made (an existing policy junked or a new one added), the regulator be asked to produce a Regulatory Impact Assessment study. This study, the Lords suggest, be independently studied by the National Audit Office (our equivalent of the CAG) both before and after implementation. A joint committee of Parliament, adequately staffed and with enough resources, be set up to examine regulatory action of an ongoing basis. Moreover, it calls for a "360 degree" view of accountability, whereby the regulator is accountable not only to parliament, ministers and courts, but also to citizens, interest groups, consumer representatives, individual consumers, and regulated companies.

Other suggestions that are worth considering include getting Parliament to ratify the selection of regulators, fix uniform tenures for regulators, standardize the procedure for appointing and even dismissing regulators (it has to be made tough if the regulators are to have any teeth). Lastly, economic regulations can help companies make or lose hundreds of crore, so the quality of legal and other expertise they bring to bear is huge – if regulators don't have similar capacity, it is asking for trouble. Regulators have to be staffed with top class brains in economics, law, finance, accounts, competition issues. There is too much at stake to carry on with the old business as usual method of hiring a retired bureaucrat and hope that, with the benefit of just public consultations, the generalist can deliver the desired results.

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