TRADE AND INVESTMENT REFORM SUPPORT PROGRAM IN AZERBAIJAN

Topic: ROLE OF A REGULATOR

ERRA seminar

Hasso Bhatia, PhD
Utility Sector Advisor
July 2008
Baku, Azerbaijan

Regulation: a Legitimate State Function

- To define, monitor and enforce rules of behavior of enterprises, agencies, and institutions (public or private)
- Regulation derives from constitution, enacted laws , decrees and rules to assure fair and non-discriminatory application
- Protection of public interest a primary goal

Types of Regulation

- Social: to protect free speech and expression; practice of faith and religion, public decency and mutual respect; right of privacy, civil code
- Environmental: protect public health, safety, environmental degradation
- Economic: commercial behavior, fair trade, anti-monopoly and oligopoly, foster competition, property rights, commercial code and contractual agreements, free movement of goods and services

Types of Regulation (cont'd)

- Natural monopoly regulation: Services that are best rendered by a single supplier must be protected from monopoly pricing
- Securities regulation: protection of investors, insider trading; access to public information; market rules and monitor trading practices
- Application of judicial code: habeas corpus, right to due process; civil code and rules of evidence; administrative procedures code

Economic Regulation

Consumer needs protection when market condition is:

- Monopoly: when single firm can (or allowed to) sell to many buyers a good or service
- Natural monopoly: where public interest, economy of scale, environmental concerns, safety demand that only one firm should serve in a given area: electricity; gas; water

Economic Regulation (cont'd)

- Oligopoly: A few major suppliers account for bulk of sale to many buyers. Suppliers have market power.
- Regulator may set limits on market share, e.g. many US states limit generation ownership by a single entity
- Monopsony: Demand comes from single buyer but many sellers. Price of good is reduced to cost level and if below cost the suppliers disappear (e.g Govt. may be the only buyer). Affects public interest

Economic Regulation (cont'd)

- Prevent price-fixing, collusion to hold product from the market, hoarding, e.g. capping of gas wells to exact higher price from consumer
- Cartels: Suppliers organizing to set prices and supply quantities
- Regulation is to act as substitute to competition when competition not in public interest but creates incentives similar to competition: seller shares benefits of his efficiency with consumer

Regulation of Natural Monopoly

- Regulate only true natural monopolies
  - Changing industry structure renders fewer true monopolies, e.g generation can be unbundled from transmission and opened to competition
  - Distribution may be unbundled: metering and billing vs wires
  - Changing technology: e.g long distance carriers, mobile service vs. land-lines.
  - Cable vs satellite dish
  - Social Protection: ability to pay always a concern of regulation
  - Recognize that it is an essential service

Regulatory Models

- Rate of Return regulation
- Price caps and revenue caps
- Performance- based regulation
- Indexed regulation: (CPI- X), UK- model
- Incentive regulation
- Hybrids
- Tight vs light regulation
- In the long run private operators must cover the opportunity cost of capital adjusted for risk in the country of operation

Regulatory Parameters

- Initial physical asset and system condition
- Regulatory instruments:
  - tariffs: level and structure
  - quality of service demanded
  - investment obligations, size, recovery rate, timing
  - contractual obligations: both operator and regulator
  - demographics and macro-economic conditions
  - government subsidy
- enabling legislation (statutes, decrees)

Regulatory Obligations

- Transparency and accountability: for operators and regulators
- Allow transparency in monitoring operator behavior
- Allow public to participate; sunshine rules; reasonable access to information
- Protect legitimate confidentiality
- Reduce scope for corruption, collusion
- Ability to capture any conflicts thru audit and investigation
- Regulatory regime must be:
  - Simple, justifiable and publicly justified
  - Enjoy wide acceptance by majority of stakeholders

Regulatory Obligations (cont'd)

- Final decisions should be dominated by technical rather than political factors. This makes regulation fairer and reduces regulatory risks in the perception of investors
- Understand cash-flows: depreciation, price elasticity, accounting policies, tax laws
- Adjust to changing conditions: risks, currency fluctuations, quality of service demanded, investment climate
- Act within the laws

Regulatory Game in Restructuring Economies

- **Regulation: often a game between Govt and private monopolies, where regulator acts as a referee**
- **Rules of the Game**:
  – the provider minimizes its costs; delivers on quality of service consistent with the tariff levels
  – all users including govt, public sector enterprises pay their bills
  – Govt delivers on its commitments: honors contracts, deliver on subsidies, non-interference
  – Regulator ensures that benefits of privatization are fairly distributed between users and operators: lower tariffs, better quality, higher profits. Everyone wins.
  – Regulator always has less information than the operator: lack of relevant historic or comparable data

Regulatory Game in Restructuring Economies (cont'd)

- transparency of regulatory process, educating public at large, particularly the media, a major failure of the reform program.
- without education and analytical explanation from regulator the media subject to manipulation by political interest groups
- current tariffs always a media focus

Regulatory Game in Restructuring Economies (cont'd)

- users forget how poor the service was before privatization
- tariffs make headlines because regulator provides inadequate analytical explanation of its decisions
- energy tariffs have a political dimension in all countries including the US: California case
- it is the core issue in developing countries undergoing reform

Regulatory Game in Restructuring Economies (cont'd)

- success of privatization and reforms often measured by what happens to tariffs through improved efficiencies
- however, increased coverage, quality of service, employment are important indicators
- tariff only one variable in a larger picture
- regulator's job to educate the public in mechanics of tariff-setting

Main Focus of Regulation

- Financial viability of the enterprise
- Productive efficiency: to push operators to minimize costs
- Allocation efficiency: reflect fairly the marginal cost of inputs: labor, capital, etc
- Dynamic efficiencies: Look longer- term, invest for future
- Regional cooperation to improve efficiencies

Main Focus of Regulation (cont'd)

- Achieve continuity of service consistent with optimal allocation of available resources
- Meet the political mandate in terms of social protection, vulnerable population, re-distributive concerns
- Average tariffs must cover all non-subsidized costs

Regulation under Market Liberalization

- Same basic principles
- Net work services fully regulated
- Unbundled services fairly priced
- Larger emphasis on oversight
- Monitoring and enforcement of market rules
- Universal coverage: Supplier of last resort
- Quality of service at center stage
- Security of supply: who provides new generation?
- Market power and abusive participant behavior: e. g. slamming

Tariff as Primary Regulatory Tool

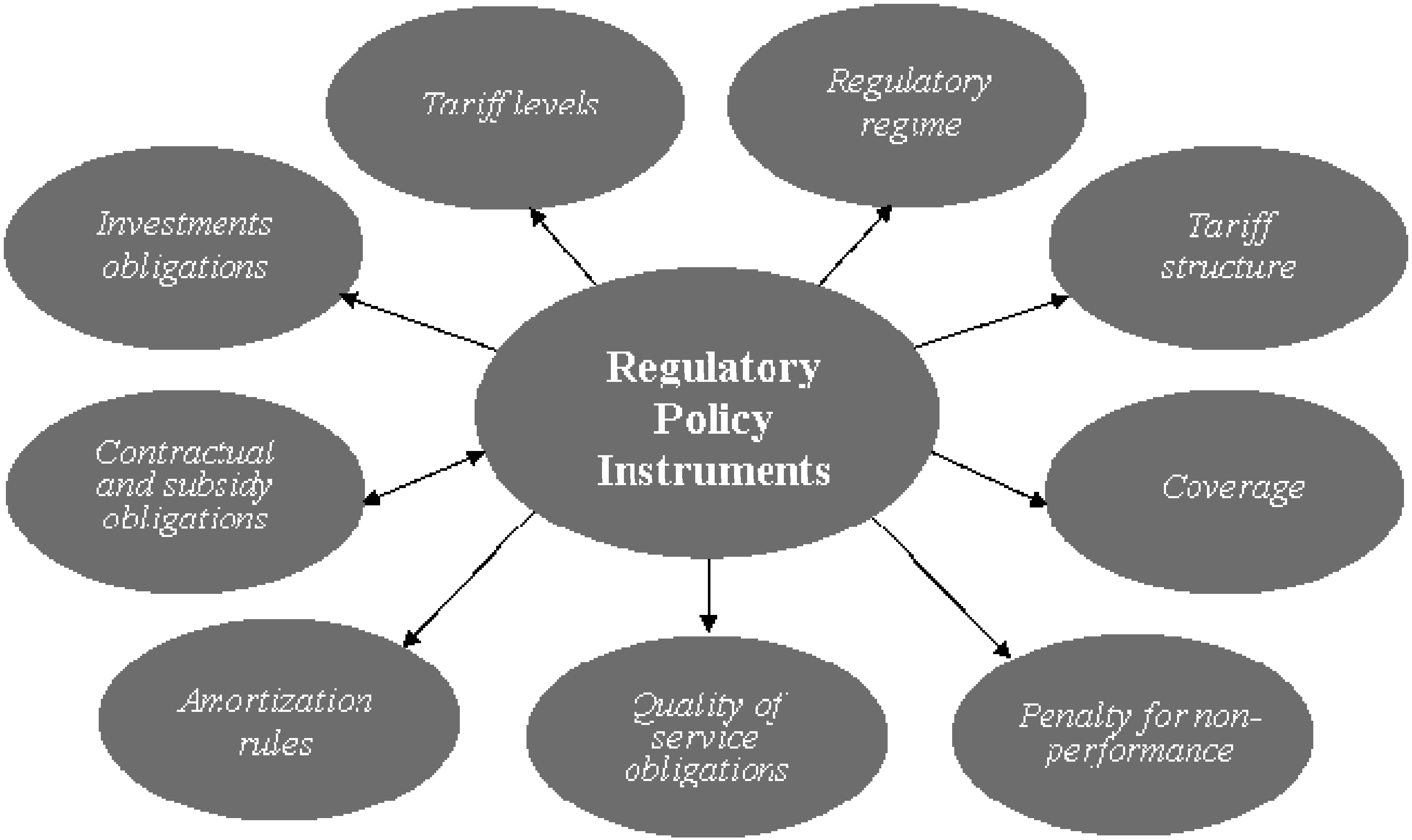
- Important for everyone involved to understand what drives tariffs
- Just as consumers have limited ability to pay, the operator is constrained by the cash flows generated by the system

Tariff as Primary Regulatory Tool (cont'd)

- Tariffs are economic signal to users and investors: how much to consume; how much and how fast to invest
- Tariff level and structure: in the end all regulatory concerns are reflected in the average tariffs
- Invested capital must be assessed at reasonable value, amortization rates and return on it.
- Need clear separation of regulated vs un-regulated business.

Tariff Structure

- Important to optimize consumer behavior
- Analyze cost to serve various groups of consumers: industrial, commercial, domestic
- Reduce cross subsidies by trying to match tariffs to costs. Some cross-subsidy unavoidable
- Correct signal to users to consume efficiently
- Tariff structure complexity varies with size of the consumer: metering, billing costs justifiable
- Non-domestic consumers more responsive to price signals: TOD; interruptible; kw/kwh; etc


Tariff levels
Regulatory regime
Investments obligations
Tariff structure
Regulatory Policy Instruments
Contractual and subsidy obligations
Coverage
Amortization rules
Quality of service obligations
Penalty for non-performance

Regulatory Independence

- Process works best when regulator operates independently according to mandate. In practice politicians continue to assert influence despite statute to the contrary

To resist interference the regulator should:

- Base decisions on sound technical analysis
- Explain and articulate decisions with legal and analytical support
- Be transparent: bring in public and interest groups in the deliberative process
- Develop sound regulatory tools: procedures, strong professional organization
- Act with integrity, fairness and efficiency,
- Give timely decisions