

# Infrastructure in a Market Economy: Regulatory Issues

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# Topics

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- Regulatory Environment
- Substantive Issues
- Process Issues

# Regulatory Environment

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- Certainty and Flexibility
- Intellectual Milieu

# Regulatory Environment

## Certainty and Flexibility

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### **Demands**

- Investors and consumers look for certainty and predictability in the regulatory process
- Flexibility, however, is often required to adapt to changing circumstances

### **Responses**

- Regulation by contract
  - Bilateral change only
  - Role for regulator?
- Discretionary regulation
  - Unilateral change with process protections

# Regulatory Environment

## Certainty and Flexibility: Policy Queries

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- What is the appropriate balance between the desire for certainty and the need for change?
- How can change best be “managed” in the regulatory process?
- To what extent, if any, should regulation be done by contract? To what extent, if any, should it be carried out in a more dynamic process?
- Should the consent of the regulated be required before any changes in the regulatory equation are made? If the regulator has the ability to unilaterally alter the regulatory equations, what constraints should be put in place to limit his or her discretion?

# Regulatory Environment

## Intellectual Milieu

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### **Demands**

- A rigorous intellectual milieu for regulations contributes to richer decisions
- Thoughtful debate and deliberation
- Avoid arbitrariness and corruption

### **Responses**

- Organize key interests to make certain their voices are heard in the regulatory process
- Academic institutions, “think tanks” and other scholarly or policy-oriented groups contribute significantly to the regulatory ambiance
- Universities often have multi-disciplinary regulatory studies programs
- Many jurisdictions and/or interest groups actually subsidize such groups in the belief that they help to impose intellectual discipline, avoid “capture” of the regulators by any particular group, generate new ideas and prevent arbitrariness or corruption of the regulatory process

# Regulatory Environment

## Intellectual Milieu: Policy Queries

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- What steps, if any, need to be taken to avoid regulatory “capture”?
- What level of support, if any, should be provided to assure an appropriate intellectual environment for regulators?
- What steps, if any, should be taken to assure that all relevant constituents of regulation have a voice in the regulatory process?
- What responsibility do investors have to contribute to enhance the intellectual ambience and infrastructure of regulation?

# Substantive Issues

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- Market Structure
- Pricing
- Social Expectations and Standards



# Substantive Issues

## Market Structure

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**Principle:** Regulated monopoly and competition are means to an end

### **Demands**

- Private investors and consumers will want to know to what degree market forces will be relied upon

### **Responses: Developing the standards**

- Mere possibility of competition is sufficient?
- Competition needs to be sustainable and viable?
- Are any monopolies sustainable?
- If market forces will be relied upon, all interested parties certainly want to know what the rules of the market place will be:
  - How will long-term supply markets operate?
  - How will the spot market function?
  - What institutions will be put in place?
  - What rules short- and long-term are needed?
  - Enforcement? (behavioral, structural)
  - Market power
  - Antitrust
  - Vertical integration

# Substantive Issues

## Market Structure: Policy Queries

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- What rules/guidelines are so essential that they need to be established very early in the process?
- Is the mere possibility of competition sufficient for reliance on market forces, or should there be a higher threshold?
- What services, if any, should be monopolies, or subject to exclusive concessions?
- What are appropriate market power standards? How should they be enforced?
- Who should be able to access the competitive market?
- To what degree, if any, should vertical integration be permitted? How should affiliate transactions be dealt with?
- What market structure issues need to be dealt with as a matter of public policy, and which can simply be allowed to evolve without any government intervention?
- How should long-term contracting be done? How should spot markets operate?

# Substantive Issues

## Pricing

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### Demands

- Provide investor with *reasonable opportunity* to recover capital
- Provide investors with *reasonable opportunity* to earn profits commensurate with risks taken
- Incentives to perform

### Responses

- If there is competition
  - Prices are market determined
- If a monopoly
  - Cost of service (rate-of-return pricing)?
  - Price cap?
  - Revenue cap?

# Substantive Issues

## Pricing: Policy Queries

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- What constitutes a sufficiently competitive market to allow for market-based prices?
- What residual mechanisms, if any, should regulators retain to intervene where competition is not sufficient to permit market-based prices? When may/should they be imposed?
- What services, if any, are natural monopolies, or should be treated as monopolies for purposes of regulation?
- What is the appropriate pricing regime for monopoly services? Price cap? Revenue cap? Rate of return? Something else? Which system provides for more resiliency? Which is more subject to political or other manipulation? Which sends the most appropriate price signals? Which is more complicated or costly to administer? How different are the methodologies?
- If price caps are used, what cost elements, if any, should be considered exogenous to the cap? Should there be a productivity factor employed? If so, how should it be derived? What is the appropriate time duration between rate reviews? What indices, if any, should be used to allow for automatic rate adjustments? What matter should be subject to regulatory review at the specified times for such reviews? How should such reviews be conducted? Should any changes in rates or terms and conditions of service by the regulator be permitted between the periods specified?
- If rate of return regulation is used, what constitutes a reasonable rate of return? When should reviews of rates and terms and conditions of service be conducted? How should the reasonableness/prudence of costs incurred be ascertained? Should some elements of costs be considered exogenous to “rate case” reviews and be treated differently?

# Substantive Issues

## Social Expectations and Standards

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### **Demands**

- Economic efficiency
- Social expectations (e.g., universal service, environmental, low-income subsidies, quality of service)
- Consumer expectations (e.g., timely payment of bills, reasonable access, protection from theft of service)

### **Responses**

- Articulate expectations in license or law (*ex ante*)
- Internalize into privatization

# Substantive Issues

## Social Expectations and Standards: Policy Queries

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- What are appropriate service quality standards?
- What are appropriate social expectations from regulated providers of infrastructure services or private custodians of precious natural resources/
- How and where should service quality standards and social expectations be articulated?
- Should concessionaires be able to exercise the powers of eminent domain, and if so, under what circumstances and procedures?
- What remedies will be available to service providers for non-payment, misuse of service or another breach of obligation by consumers? What should the rules be for the disconnection of service?
- What remedies will be available to consumers when the service provider breaches its obligations?
- How will disputes between regulated service providers and consumers be resolved?

## Process Issues

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- Independence
- Competence
- Transparency
- Appeals
- Boundaries between Regulation and Management/Risk Allocation

# Process Issues

## Independence

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### **Demands**

Regulatory agencies need to be independent from government and stakeholders

- Free from short-term or partisan political considerations
- Free to make final decisions subject to appeals
- Sufficient financial and human resources

### **Responses**

- Fixed terms
- Revolving fund budget arrangements
- No removals other than for good cause
- Final decision-making authority without having to obtain prior approval



# Process Issues

## Independence: Policy Queries

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- What mechanisms should be in place to protect regulatory independence?
- What mechanisms should be in place to assure that regulators are appropriately accountable?
- How should the budget for the regulatory agency be set, and what is appropriate spending for regulation?

# Process Issues

## Competence

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### **Demand**

Regulators must be competent in the various disciplines that bear on their duties

### **Responses**

- Skilled and experienced practitioners in such relevant professions as economics, public administration/management, law, finance, engineering and accounting
- Minimum professional criteria might be mandated by law or regulation
- Salaries and benefits should be set at levels that enable the agency to both attract and retain capital

# Process Issues

## Competence: Policy Queries

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- Should minimum qualifications be set for regulators? If so, what should they be?
- Should diversity of professional backgrounds be mandated for regulatory agencies?
- What other assurances of regulatory competence, if any, should be put in place?
- How do regulatory agencies obtain adequate resources?

# Process Issues

## Transparency

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### **Demand**

The decision-making process must be fair, open, transparent, easily understood and accessible to all who wish to participate

### **Responses**

Elements of such a process would typically include:

- Notice of matters that are pending
- Meaningful opportunities for parties to participate and input pending issues whose outcomes will affect them
- Open records requirements
- Clear, publicly articulated rules and timetables for decision-making
- Published ethical and other codes of conduct
- Written decisions clearly setting forth both the decision and the rationale for it
- Open records
- Testing of information

# Process Issues

## Transparency: Policy Queries

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- What are the critical elements required to assure transparency in regulation?
- What are the critical elements of fairness in a regulatory decision-making process?
- How extensive should “open records” and “sunshine” requirements be?
- Should there be a single regulator or a board?
- What ethical standards are appropriate for regulators?
- Can real-world policy making/regulation be fully transparent?

# Process Issues

## Appeals

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### **Demand**

Regulatory decisions need to be final in an administrative sense, but should be subject to appeals to relevant authority

### **Responses**

The standards for appeal typically include:

- Making certain regulators did not exceed their authority
- That all procedural and substantive rights were properly observed
- The decision in question was neither arbitrary nor capricious
- Some jurisdictions require appellate bodies to conduct *de novo* proceedings, while others simply accept the record of the regulatory body and make appropriate legal review

# Process Issues

## Appeals: Policy Queries

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- What are appropriate substantive and process standards for appellate review?
- What is the appropriate forum for appeals: government? court? both?
- What assures expertise and competence in appellate bodies?

# Process Issues

## Boundaries between Regulation and Management/Risk Allocation

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### Demand

- Investors need to be able to manage their own assets and affairs if they are to be held accountable
- Regulators must be able to allocate risks in accordance with controllability

### Responses

- Reasonableness of costs?
- Prudence?
- Effectiveness of incentives?
- *Ex post* or *ex ante* regulation?



# Process Issues

## Boundaries...: Policy Queries

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- What are the appropriate boundaries between regulators and management?
- What are the appropriate boundaries? Risk allocation to investors? To consumers?
- When, if ever, is it appropriate for regulators to substitute their judgment for those of managers?
- How do the boundaries between management and regulation affect risk allocation?