Fundamentals of Regulatory Systems: Lessons from the Global Experience

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Some Thoughts

Spare us from cowardice that shrinks from new truths;

Spare us from laziness that is content with half-truths; and

Spare us from arrogance in thinking that we know all truth.

Some Questions

- What are the basic patterns of infrastructure investment involving private participation?
- How does the political economy of regulation make it difficult to create value?
- What conflicts are currently harming regulatory effectiveness and infrastructure performance?
- Are technical skills most important for improving regulatory and sector performance?

Outline

1. Political Economy of Regulation: balancing special interests
2. Sources of Conflict and Sector Performance
3. Economics of Infrastructure: your tools include Technical skills, Organizational design, Leadership, Education, Communication

1. Political Economy of Regulation

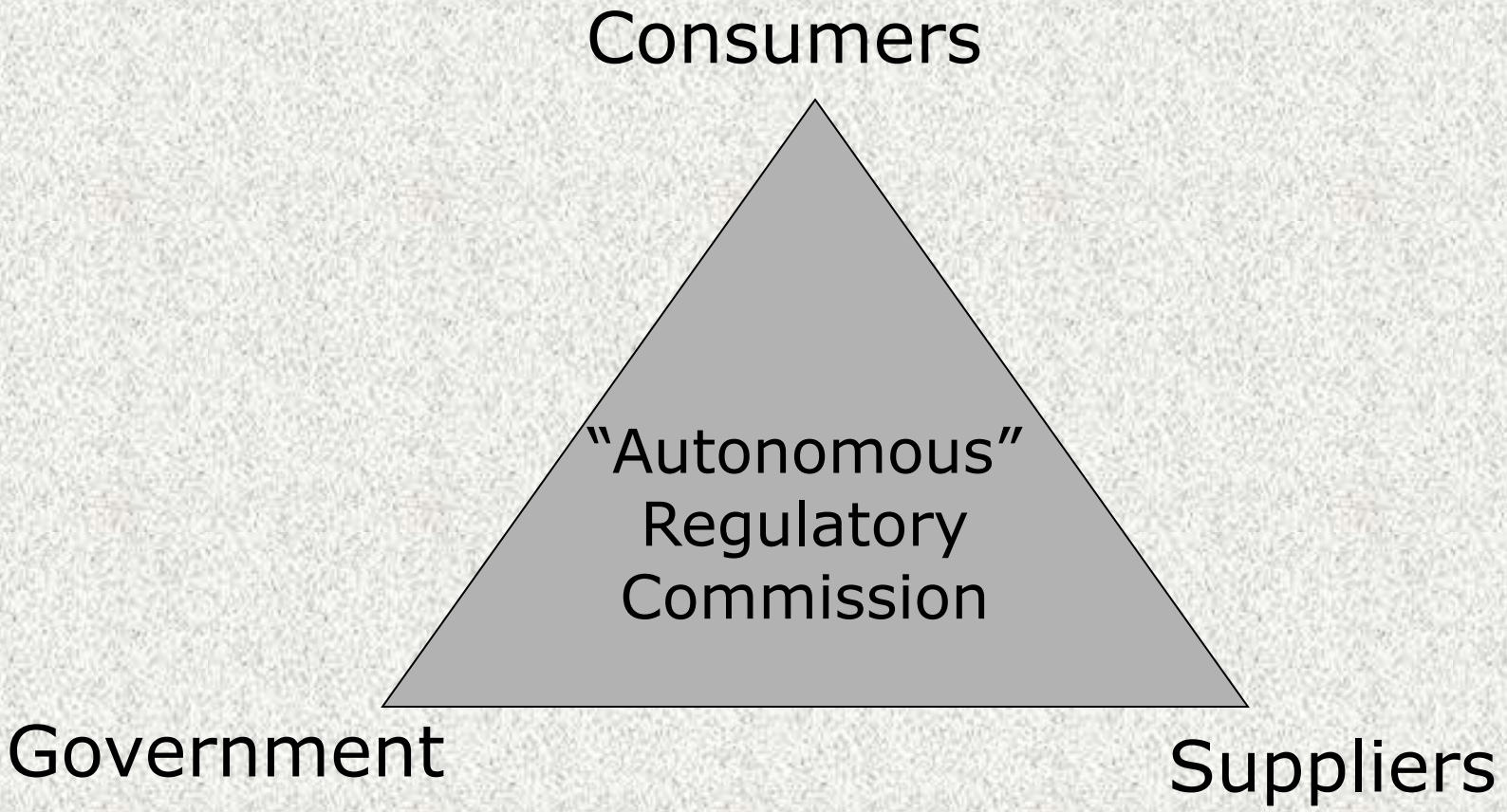
- Prices are politically sensitive and citizen expectations are high.
- Market power results in "high prices" and/or high costs (low managerial effort: "comfortable monopoly")
- Favored consumers like prices that are "too low".
- Powerful labor groups and input suppliers do not benefit from cost containment.

Special Interests Can Destroy Value

- **Political opportunists target sunk investments—limiting the effectiveness of government funding and damaging future private participation.**
- **Consumers have no quality comparisons for putting pressure on monopolists.**
- **Incumbents seek barriers; high cost entrants seek special arrangements.**

The Political Economy of Regulation does not immediately reward regulators (or the political system) for creating value!

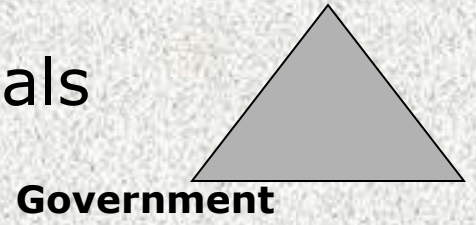
"Classic" View of Regulation: Balancing Interests



Government

Broad Definition: politicians/elected officials

Narrow Definition: Sector Ministry



Implications:

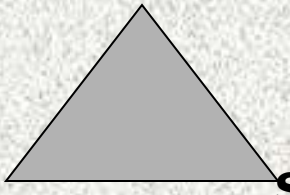
- Legal Instrument matters (legislation, decree)
- Time Horizons of policy-makers
- Fiscal Impacts of SOEs (subsidies and investments)
- Role of infrastructure in promoting growth

Because those currently out of political power could be in power in the future, the agency is mediating the interests of individuals whose *time horizons* extend to the next general election and others who influence public policy only indirectly.

Infrastructure Suppliers

Entire Production Chain considered, plus

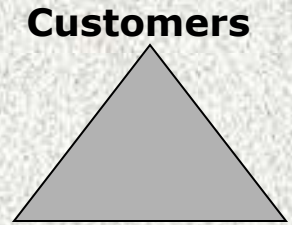
- Incumbent Firms
- Recent Entrants
- Potential Entrants



Cash Flows (financial sustainability) affected by:

- Network Access Regimes
- Types of Incentive Systems (price cap vs. rate of return)
- Uncollected Billings
- Nature of the Rate Review Process

Customers



Industrial Demanders (political clout)

Commercial Demanders

Residential

- Urban or Rural (high cost areas)
- Large or Small Demanders
- High Income or Low Income
- Served or Unserved Communities
- Technologically Sophisticated and Unsophisticated
- Today's Customers vs. Tomorrow's Customers

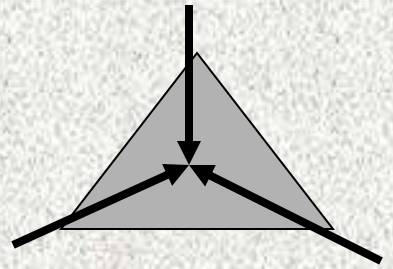
Conflict *Within* a category is as intensive as *between* the three groups.

Balancing vs. Juggling Interests

The classical characterization of the regulator as merely balancing the interests of three groups begins to resemble a troop of jugglers with thirty different objects in the air.

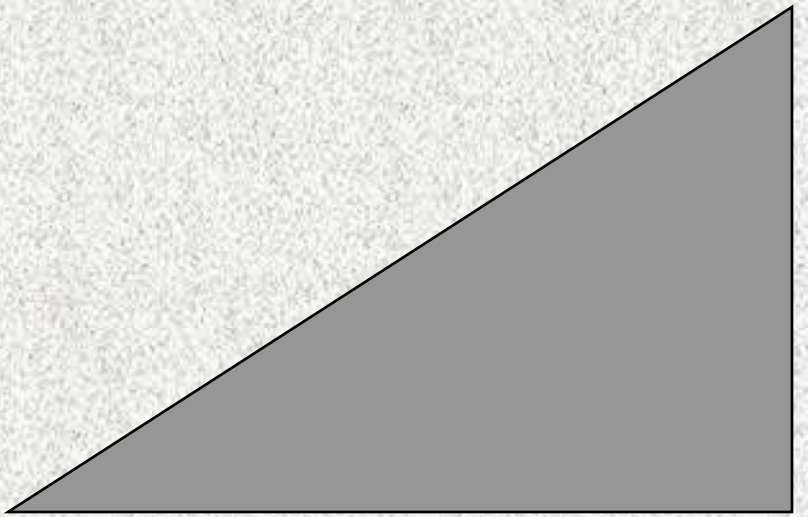
As the number of policy objectives increase, potential suppliers expands; with the increasingly diverse needs of customers, *the task of regulation becomes more complicated*

Key Task: **Resolving Conflicts**



One View of Regulation: Tug of War

Current Consumers



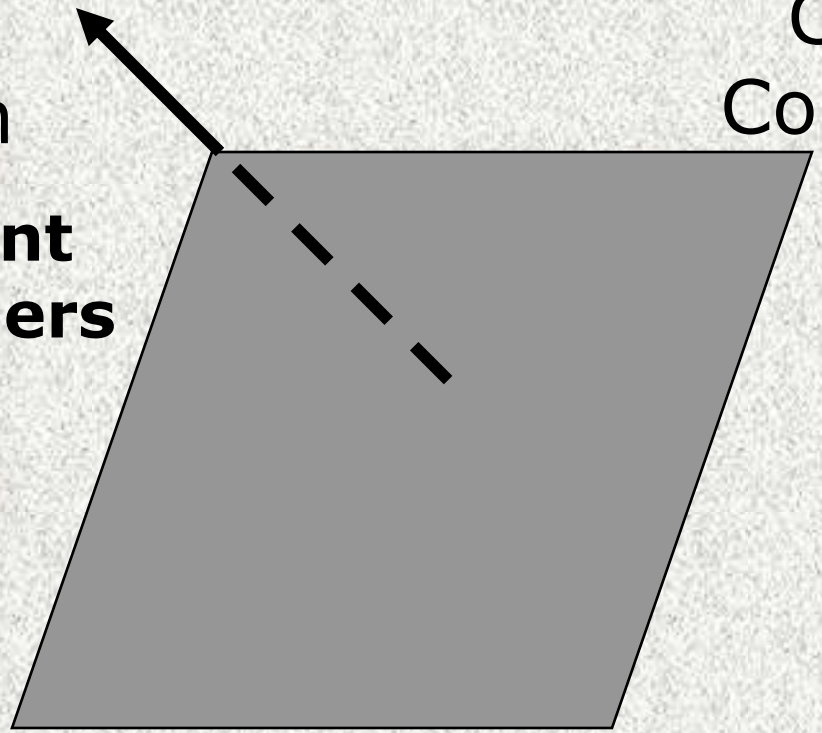
Government

Suppliers

Broader View of Regulation: Active Player in Conflict Resolution

"Autonomous" Regulatory Commission

Helps represent Future Consumers



Current Consumers

Government

Suppliers

Sources of Conflicts: Stakeholders

- **Regulatory Commission** (responsible for policy implementation in the sector: internal consensus?)
- **Government Sector Ministry** (charged with policy development)
- **Government Treasury** (addressing fiscal issues)
- **International Investors** (bond, equity, and strategic management teams)
- **Incumbent Service Providers &Potential Entrants** (state-owned enterprise or privately owned)
- **Un-served Citizens** (rural and urban poor)
- **Current and Future Customers** (consider potential conflicts among groups)
- **Multilaterals, donors, and NGOs** (as a potential infrastructure project donor/funding agency)

"Light-Handed" Approach to Regulation

- **Forbearance** *when available* (depending on the law)
- **Competition** *where feasible* (depending on production technologies and market size)
- **All-party settlements** (alternative dispute resolution) *when possible*

Avoid unrealistic expectations.

Create public confidence in the regulator.

2. Sources of Conflict and Sector Performance

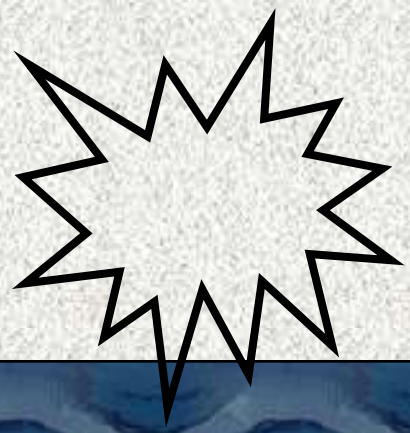
1. Authority Conflicts: lack of clarity of roles

2. Cognitive (Factual) Conflicts: disagreements regarding current or historical facts and causal linkages

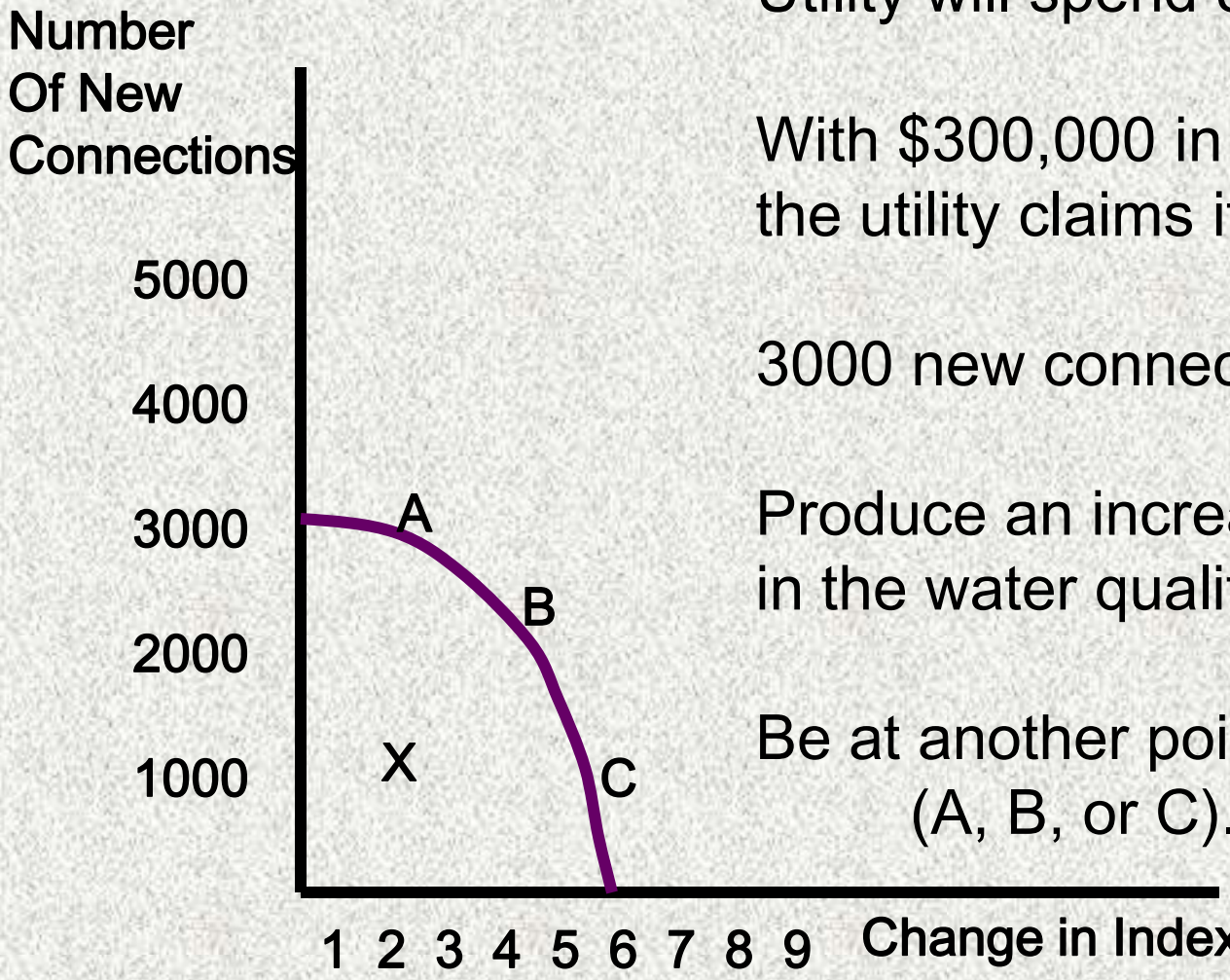
3. Value Conflicts: conflicting priorities and different weights on outcomes

4. Interest Conflicts: stakeholders benefit differentially from decisions

(from Shabman, 2005)



Context for Regulatory Leadership: Resolving Conflict and Making Choices



Utility will spend $700,000 in OPEX.

With $300,000 in CAPEX,
the utility claims it can provide

3000 new connections OR

Produce an increase of “six points”
in the water quality index, OR

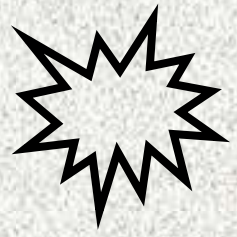
Be at another point on the Frontier
(A, B, or C).

2.1 Authority Conflict

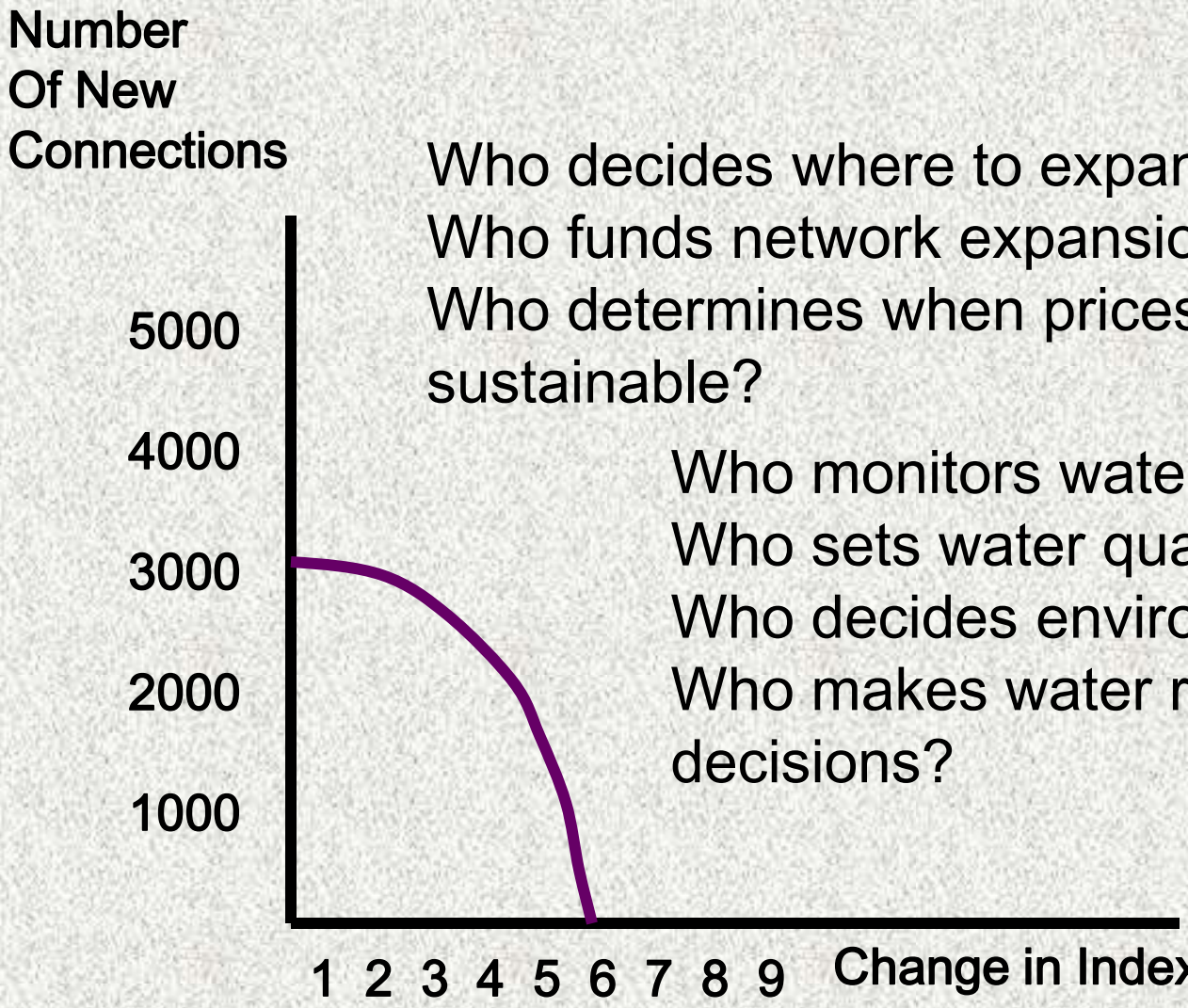
"Authority" conflicts" reflect different views regarding where decisions will or ought to be made.

Who decides?

- ✓ Jurisdiction may not yet be assigned or the issue might be addressed by multiple agencies.
- ✓ Stakeholders will go jurisdiction-shopping—selecting the agency or the level of government most likely to support its interests in policy design and implementation.
- ✓ Appeals procedures within the judicial system can delay implementation. In such situations, benefits delayed are (effectively) benefits denied.
- ✓ Issues include: Finance Ministry vs. Water Ministry, Environmental Regulator vs. Sector Regulator



Authority Issues Facing Regulators



Who decides where to expand networks?
Who funds network expansion?
Who determines when prices are financially sustainable?

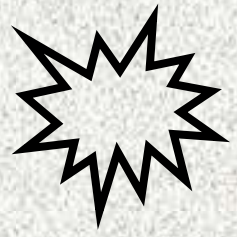
Who monitors water quality?
Who sets water quality standards?
Who decides environmental requirements?
Who makes water resource allocation decisions?

Regulator: Conflict Resolution--Authority

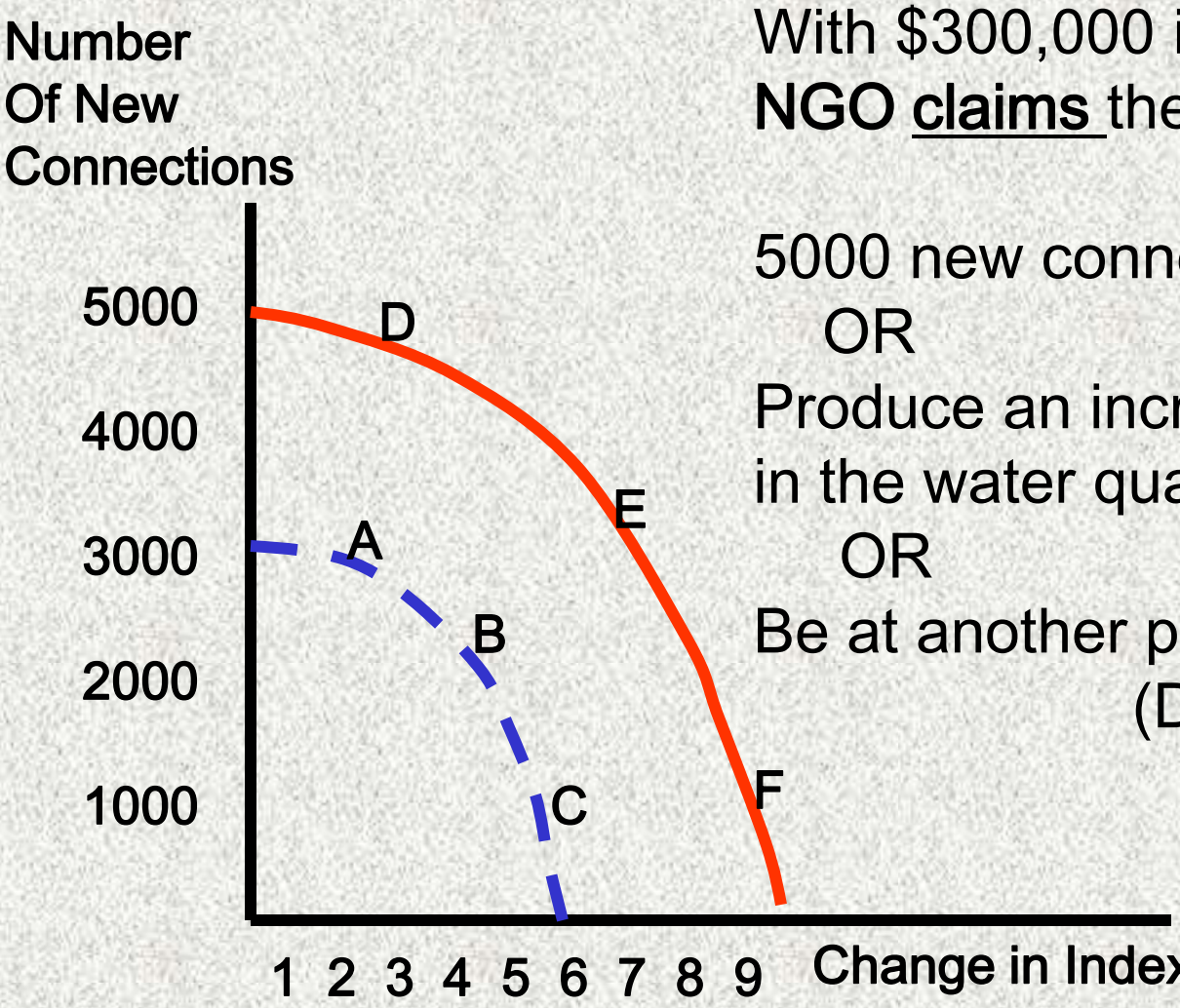
- ✓ Seek Changes in the Law—legal clarity
- ✓ Cooperate with Sister Agencies (avoid turf wars)
- ✓ Establish Task Forces to Address Issues
- ✓ Educate the Courts and Promote Transparency
- ✓ Improve Appeals Procedures

2.2 Cognitive Conflicts

- ✓ "*Cognitive" conflicts* are disputes over factual matters: **"What is?"**
- ✓ For example, How many new connections can be made with $300,000?
- ✓ Technical disagreements reflect cognitive conflicts. Such conflicts can be reduced through comprehensive data collection and analysis.



Factual Issues Facing Regulators



With $300,000 in CAPEX,
NGO <u>claims</u> the utility can provide

5000 new connections
OR
Produce an increase of "10 points"
in the water quality index,
OR
Be at another point on the Frontier
(D, E or F).

Regulator: Conflict Resolution--Facts

- ✓ Benchmarking Studies:
  - Input Data (physical and monetary)
  - Output Data (connections, water delivered, continuity, quality)
- ✓ Financial Sustainability Studies
  - Income Statements
  - Balance Sheets
  - Cash Flow Statements

Examine Incentives and Estimate time to reach “the” frontier

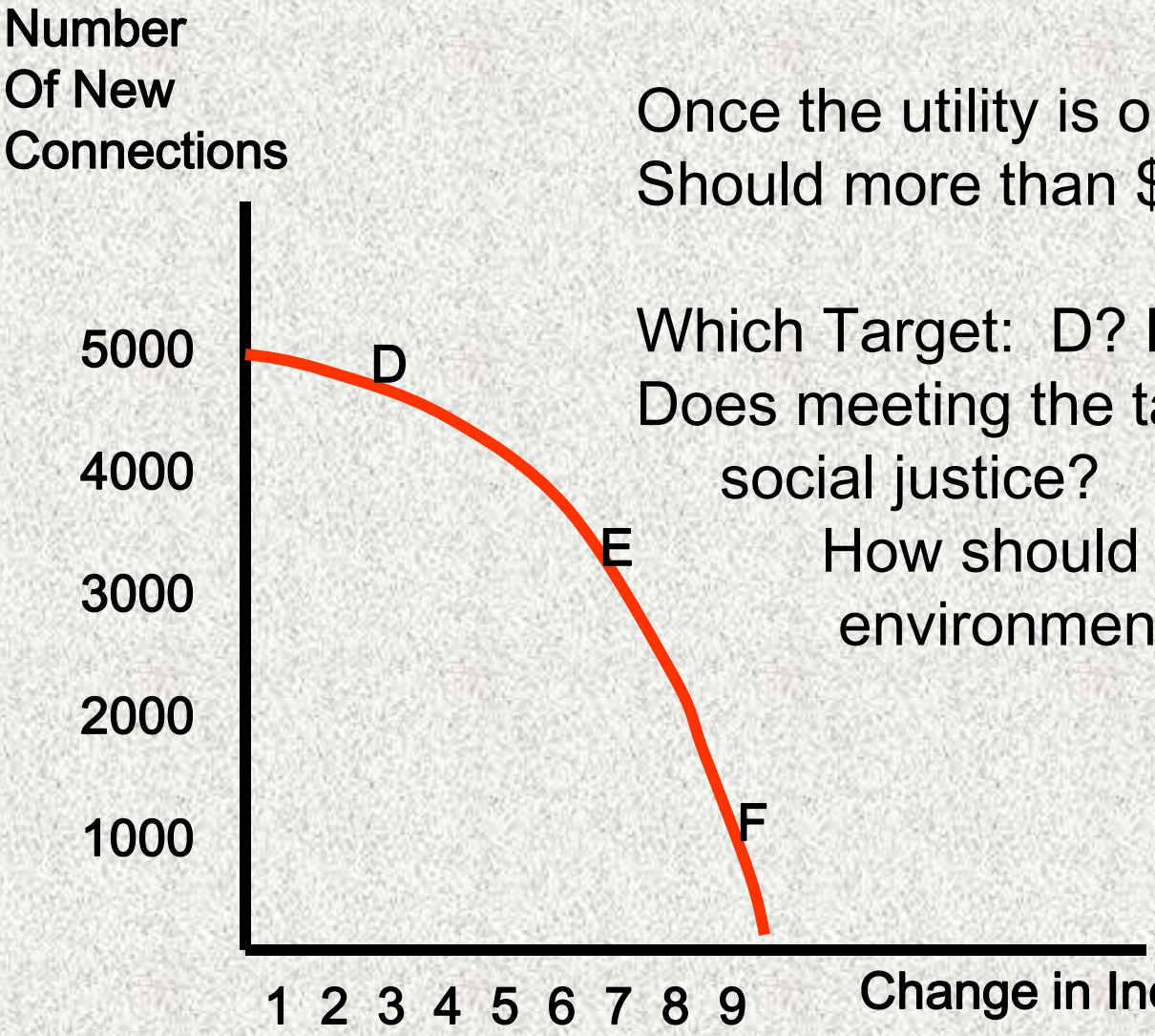
2.3 Values Conflicts

- ✓ *"Values" conflicts* are more ideological in nature, reflecting the different preferences or values of groups.

  What should be?

- ✓ Is there a political consensus over the weight assigned to particular outcomes, especially outcomes involving non-monetary impacts?
- ✓ Targets: Preferred outcomes depend on citizen attitudes.

Values Issues Facing Regulators



Once the utility is on the Frontier . . .
Should more than $300,000 be invested?

Which Target: D? E? F?
Does meeting the target promote social justice?

How should we prioritize environmental objectives?

Regulator: Conflict Resolution--Values

- ✓ Public Education
  - Publish Performance Comparisons
  - Identify Trade-offs
  - Report to the Legislature or Executive Branch
- ✓ Promote Citizen Participation
  - Talk Radio
  - News Conferences
  - Citizen Advisory Boards

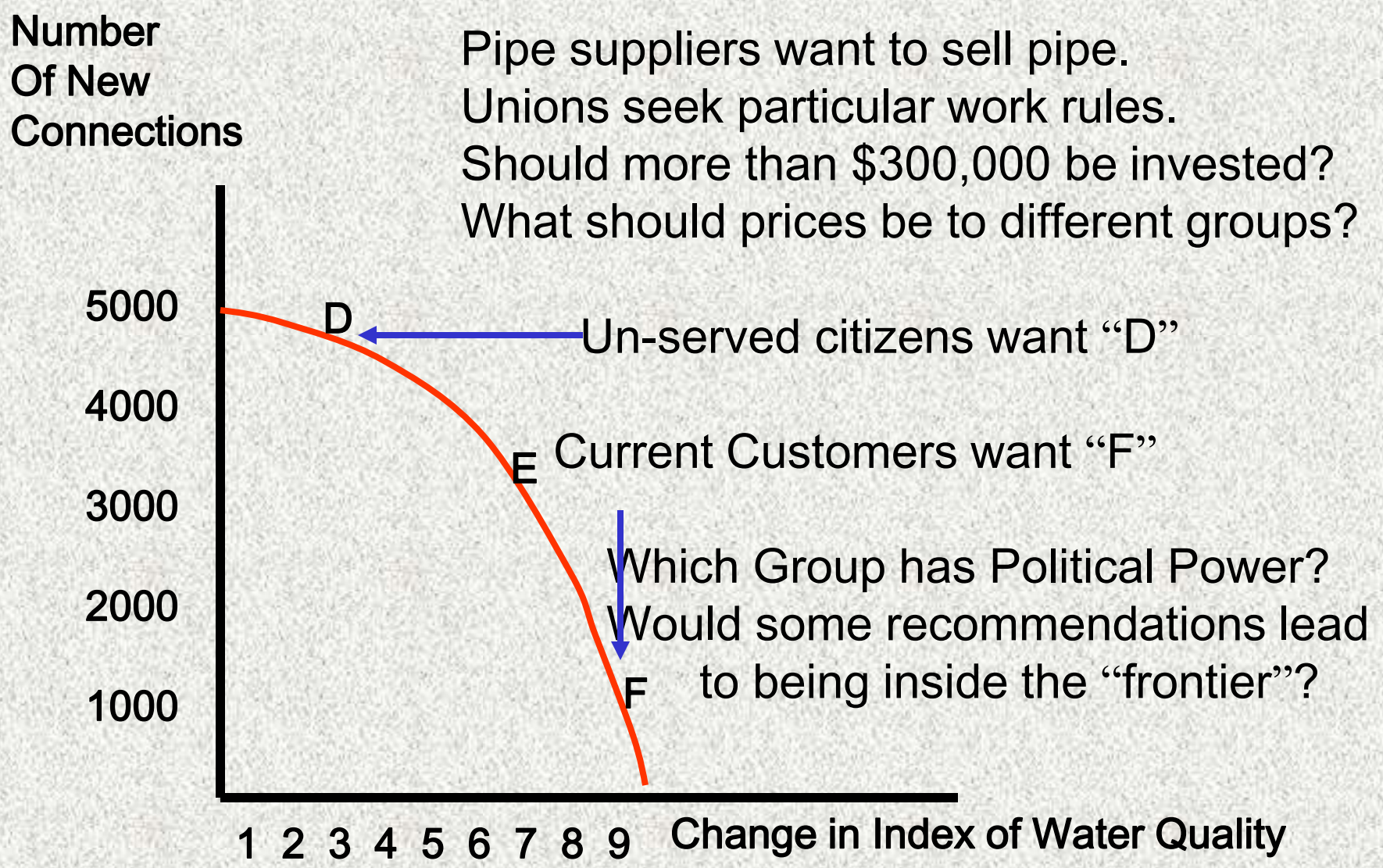
Limit the Rhetoric: Articulate a Vision

2.4 Interest Conflicts

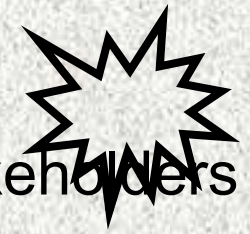
- ✓ *"Interest" conflicts* reflect the differential impacts of policies on various stakeholder groups: **"Who benefits from the policy?"**
- ✓ If zero-sum game: one group benefits at another's expense (unless there is compensation).
- ✓ Special Interests: When the beneficiaries of a particular policy are concentrated (and per capita benefits are high) the beneficiaries will lobby.
- ✓ If losers are diffuse (and the per capita damages are low), the result is a policy that benefits well-organized stakeholders—even when the costs to the losers outweigh the benefits to the winners.

Special Interest Issues & Regulators

Pipe suppliers want to sell pipe.
Unions seek particular work rules.
Should more than $300,000 be invested?
What should prices be to different groups?



Regulator: Conflict Resolution--Interests

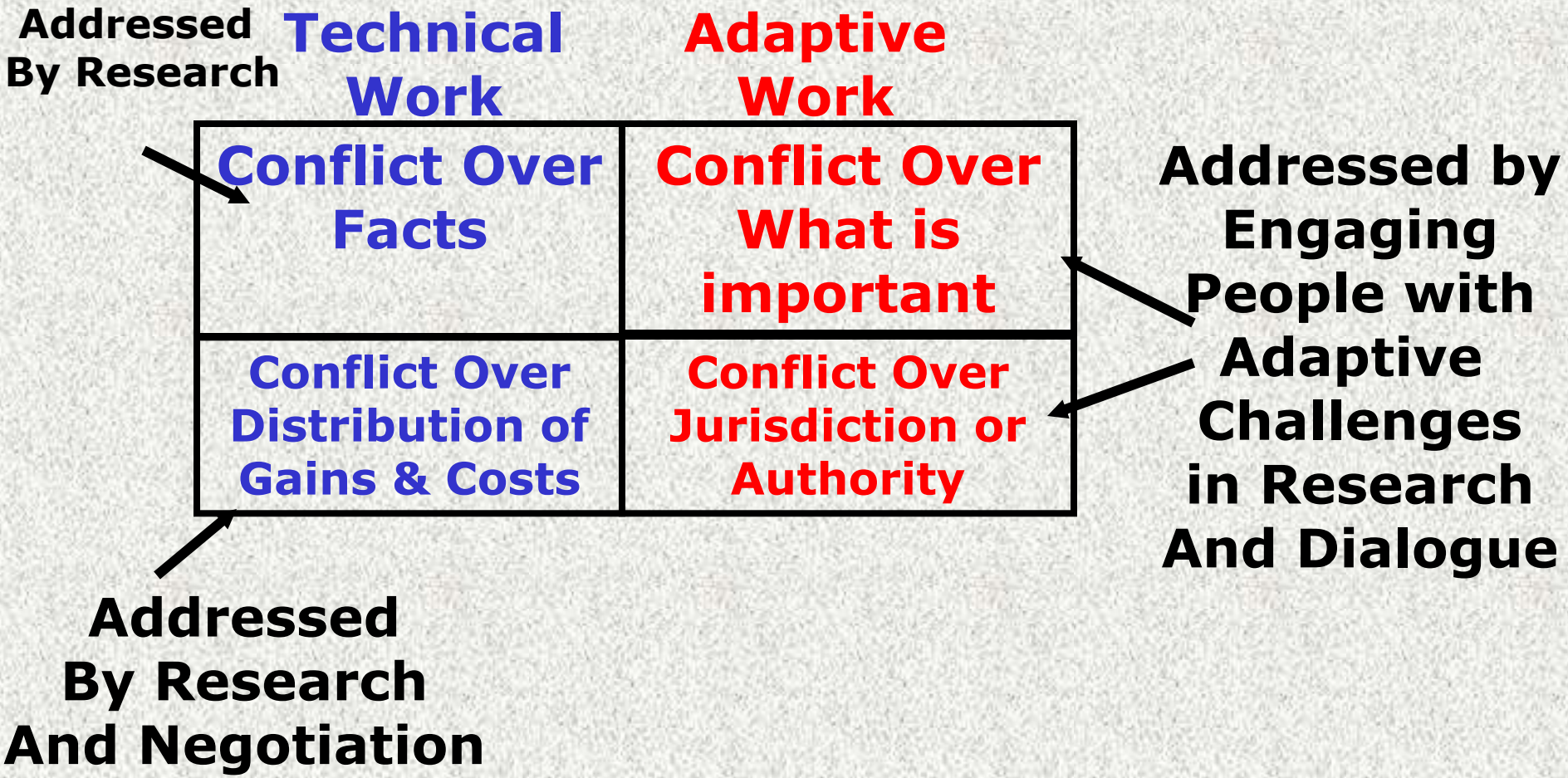


- ✓ Do not pretend there are no conflicts
  - View from the Balcony—step back from stakeholders
- ✓ Take a Leadership Role in Identifying Benefits and Costs
  - Eg. OFWAT and EU Environmental Standards
  - Collected compliance cost information from utilities
  - Presented costs of meeting targets: current deadline vs. delay

Politicians make Final Decision (Accountability)

Regulator can provide Leadership in Conflict Resolution

Conflict Resolution Matrix



From Mark Jamison

Informal Survey: Consider how you would answer the following:

1. **Authority**: Is the regulatory agency used to help resolve key issues or is it by-passed? Are you in the middle of "turf wars"?

2. **Facts**: Has benchmarking been used to improve sector performance? Are contracts and targets based on reality?

3. **Values**: Does the regulatory agency help clarify how the targets reflect goals or stated political objectives?

4. **Special Interests**: Have regulatory decisions been inconsistent due to the influence of special interests?

3. Political Economy of Infrastructure

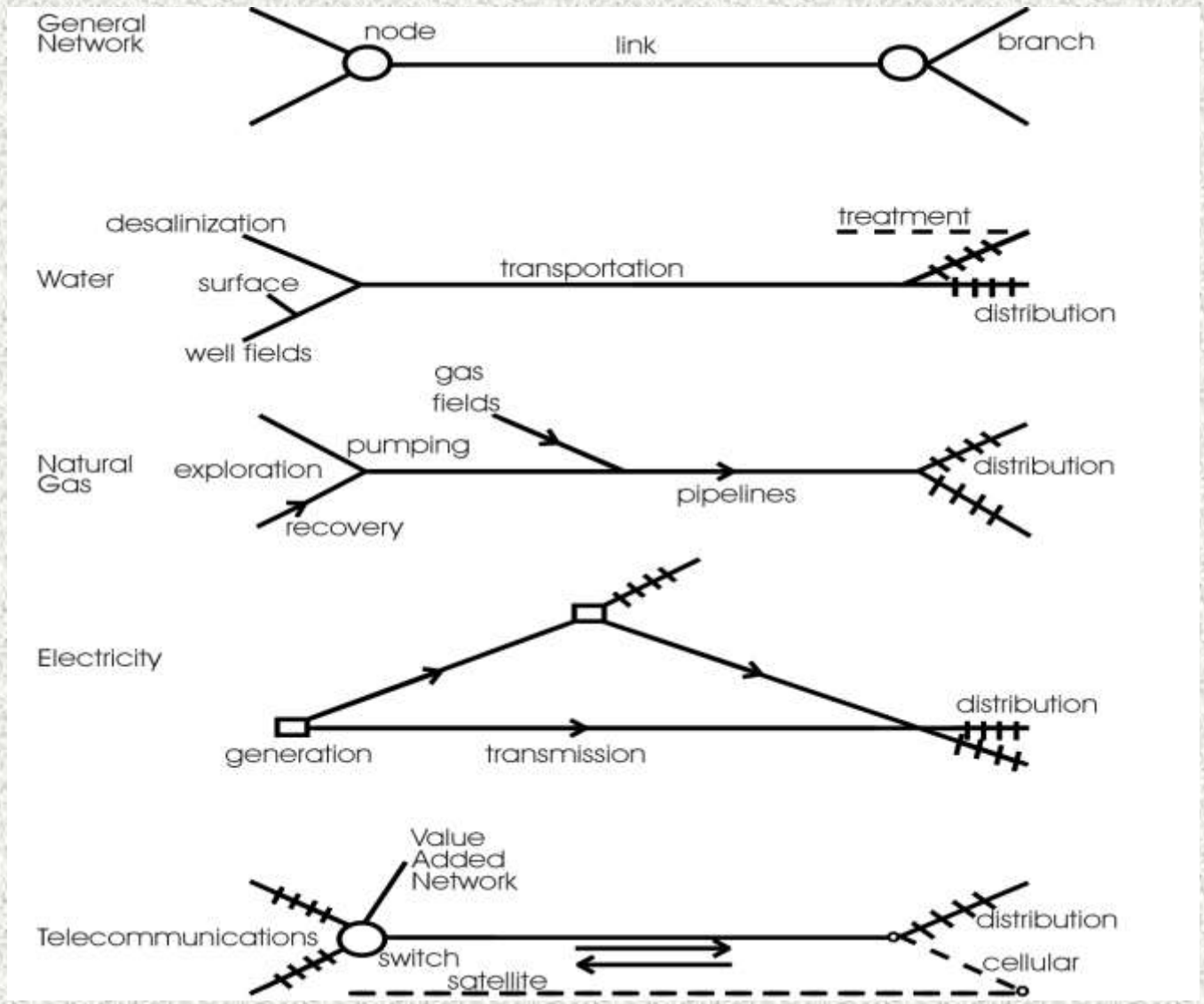
1. **Networks**: Role of technology, with links, nodes, and branches. New technologies (spectrum) and externalities (watersheds).

2. **Capital Intensity and Demand Characteristics**: Implications of cost structures for price structures.

3. **Private Participation**: How do regulation and public policy affect financial sustainability?

4. **Principles of Best Practice**: What lessons have been learned regarding the effectiveness of regulation?

Schematics of Networks



Economics of Infrastructure

	Network Business	Retail Supply
Capital Intensity	High	Low
Sales Stability	High	Low
Product Differentiation	Location & Security of Supply	Services, Prices, Marketing
Market Power	Often Single Supplier	Many Potential Suppliers
Demand Characteristics	Intermediate Markets	End-Users (Customer-Focused)
Growth Potential	Expand Network	New Markets & Savings

(Figure adapted from Martin Brough, OXIERA)

Private Participation

- SOEs issuing bonds adds additional group promoting cost-containment and long term financial sustainability.
- Privatization, high growth targets, and the withdrawal of public subsidies likely to trigger price increases.
- Nationalization does not solve the "problem" either.

"You manage what you measure."

Transparency facilitates comparisons.

Nine Best Practice Principles (Australia--ACCC)

1. **Communication**

   Information to stakeholders on a timely and accessible basis.

2. **Consultation**

   Stakeholder participation in meetings promotes legitimacy.

3. **Consistency**

   Across market participants and over time (affects cost of capital).

Nine Best Practice Principles (continued)

4. **Predictability**

A reputation that facilitates planning by suppliers and customers.

5. **Flexibility**

Use appropriate instruments in response to changing conditions.

6. **Independence**

Autonomy - free from undue political influence.

Nine Best Practice Principles (continued)

7. **Effectiveness & Efficiency**

   Cost-effectiveness emphasized in data collection and regulatory policies.

8. **Accountability**

   Clearly defined processes and rationales for decisions. Clear appeals procedures.

9. **Transparency**

   Openness of the process.

Evaluate Your Regulatory Commission (not to be shared)

Nine Best-Practice Principles

Grade Performance: Assign Values to each:

1 = extremely weak

3 = not very acceptable

5 = adequate (or acceptable)

8 = good

11 = outstanding

Policy must move beyond the Process to consider Performance Outcomes

Complete Your Survey

What would be a passing score: 50?

Has your score improved significantly in recent years?

Should each principle have equal weight?

eg. If the first two principles had weights of .5 each, then the weighted score would be the average of those two.

Do the weights stay the same over time?

Sector Performance as the Ultimate Indicator

If *Good Regulation* only involves a high rating on a checklist of agency qualities, then agencies with well-intentioned professionals ought receive high scores.

If firms in the sector are not performing at a high standard, then the regulatory scorecard will not be an adequate indicator of regulatory performance.

What is Good Regulation?

Five Relevant Benchmarks

1. The legislative mandate (targeting objectives)
2. Accountability to or control by legislature/courts
3. Due process (fair, consistent, accessible, open)
4. Expertise (easy to assess?)
5. Efficiency (in both process and outcomes)

Robert Baldwin & Martin Cave, Understanding Regulation: Theory, Strategy, and Practice, 1999 Oxford U.

Legislative Mandate

- Authorization from elected legislature
- Problems
  - Vague intentions of Parliament
  - Conflicting objectives (trade-offs/tensions)
  - Delegated authority to flesh-out objectives
  - Regulatory Discretion vs. Enforce a Contract

Robert Baldwin & Martin Cave, Understanding regulation, 1999 Oxford U.

Accountability

- Essence of the Claim: regulator is democratically responsive
- Problems
  - accountable group properly representative?
  - Is the trade-off of accountability and efficiency acceptable?

Robert Baldwin & Martin Cave, Understanding regulation, 1999 Oxford U.

Due Process

- Support is merited because procedures are sufficiently fair, accessible, and open so that democratic influence permeates the system.
- Problems
  - who should be allowed to participate?
  - What is the acceptable trade-off between openness (accessibility) and (internal) efficiency?
  - Is the *mode* of participation appropriate? (e.g. ADR—alternative dispute resolution)

Robert Baldwin & Martin Cave, Understanding regulation, 1999 Oxford U.

Expertise

- Essence of the claim: Judgment must be made in the context of many factors, requiring specialized knowledge and skills.
- Problems
  - Can the public evaluate expertise?
  - Can decisions be explained and understood?
  - Distrust “experts”, jargon, & arcane language
  - Claim conflicts with openness of the process
  - Experts disagree--undermining credibility
  - Experts can be “captured” by special interests

Efficiency

- Claim: legislative mandate is being implemented cost-effectively, Efficient *results* are produced.
- Problems:
  - Same as with Legislative Mandate claims.
  - Conflicts with Legislative Mandate may arise
  - What about distributional concerns?
  - Measurement of efficiency is difficult

Lessons for Sector Regulators and Public Policy-Makers

Sector regulators have only a few instruments to target a wide range of potential social objectives

Regulators must communicate with political leaders, the public, and other agencies about actual performance and the costs of change.

- **Ensure that access by the poor is addressed through targeted subsidies.**
- **Work with environmental regulators to promote least cost strategies.**

Lessons: Other Ways Regulators Can Create Value

- Constrain market power;
- Avoid prices that are "too low";
- Promote cost containment (production efficiency);
- Provide incentives for new capacity;
- Create incentives for optimal quality;
- Encourage entry where efficient.

Does the Political Economy of Regulation reward regulators for Creating Value or Destroying Value?

Concluding Observation: No Quick Fix

- Seek credibility, legitimacy, & efficiency.
- Infrastructure problems are going to be managed, not solved.
- Benchmarking presents a promising route for comparing performance.
- Universities provide forums for sharing experience, exploring new ideas, and clarifying important policy issues.

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