Poverty Issues in Infrastructure Regulation: Choices and Dilemmas, Opportunities and Pitfalls

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Ashley C. Brown
Executive Director, Harvard Electricity Policy Group
John F. Kennedy School of Government
Harvard University

Of Counsel, Dewey & LeBoeuf
Categories of Issues

A. Externalities: Social and Environmental
B. Network Benefits
C. Subsidies and Cross-Subsidies
D. Enforcement Issues
A. Externalities: Social Issues

Regulatory Focus: Inward or Outward?

1. Examples of Social Issues in Regulation
   a. Poverty
   b. Environment
   c. Economic Development
   d. Health and Welfare
   e. Literacy and Education
A. Externalities: Social Issues

Regulatory Focus: Inward or Outward?

2. Case for Inward Focus
   a. Limited Legal Jurisdiction
   b. Political Nature of Social Issues vs. Non-Political Regulation
   c. Inherent Conflict Between Economic Efficiency and Social Objectives
   d. Breadth of Social Issues vs. Narrow Technical Expertise
   e. Who Defines Social Issues for Regulators?
A. Externalities: Social Issues

Regulatory Focus: Inward or Outward?

3. Case for Outward Focus
   a. Social Issues Not Always Anticipatable by Policy Makers
   b. Social Issues Often Unavoidable
   c. Availability of Efficient Regulatory Remedies
   d. De-Politicization of Difficult Social Issues
   e. Obvious, Self Defined Issues (e.g. Poverty) vs. Complex Undefined Issues (e.g. Environment)
   f. Ill Defined Boundaries Between Regulatory and Social issues (e.g. Rate Design)
B. Network and Societal Benefits to Serving the Poor

Benefits of Greater Access to Network

a. More Contribution to Fixed Costs
b. Broader Access in Telecommunications
c. Reduced Social Spending (e.g. Health)
d. Environmental Protection (e.g. Protecting Aquifers, Reduced Air Pollution)
e. Economic Development (e.g. Micro-Enterprises)
C. Subsidies and Cross-subsidies

Who Decides on Subsidies: Government Policy Makers or Regulators?

1. Case for Government Policy Makers
   a. More Political Accountability
   b. Better Positioned to Balance all Considerations
   c. Better Positioned to Deal with the Politics of Subsidies
   d. Access to Public Treasury: Ability to Subsidize as well as Cross-Subsidize
   e. Subsidies are Less Likely to Interfere With Efficient Pricing
   f. Less Dependent on Monopoly Structure
   g. Stronger Legal Authority
C. Subsidies and Cross-subsidies

Who Decides on Subsidies: Government Policy Makers or Regulators?

2. Case for Regulators
   a. Less Exposed to Political Interference
   b. Better Positioned to Design, Sustain and Oversee Efficient Programs and Targeting
   c. Better Understanding of Sector Specific Considerations
   d. Better Understanding of Pricing Considerations
   e. Better Understanding of Cross-Subsidization Effects
   f. Better Understanding of Consumer Behavior
C. Subsidies and Cross-subsidies

Rate Design Considerations in Cross-Subsidies

A. Covering Variable Costs
B. Contribution to Fixed Costs
C. Avoiding Uneconomic Bypass
D. Non-Bypassable Source of Revenue
C. Subsidies and Cross-subsidies

Structural Considerations in Designing Subsidies

1. Consumption Based
   a. Lower Rates for Initial Block of Consumption
   b. More Reliance on Variable Rather than Fixed Charges

Pros and Cons of Consumption Based Approach

| + | Relatively Easy to Administer |
|   | Consistent With Traditional Approach to Tariff Design |
|   | Efficient Price Signal |

**However**

- Does Not Efficiently Target Intended Beneficiaries
- Not Always Consistent with Social Objectives (e.g. health equipment)
C. Subsidies and Cross-subsidies

Structural Considerations in Designing Subsidies

2. Income Based (Income Defined Eligibility Requirements)

Pros and Cons of Income Based Approach

| + Efficient Targeting |
| + Transparent |

**However**

- Inefficient Price Signal
- Complex Administration
C. Subsidies and Cross-subsidies

Structural Considerations in Designing Subsidies

3. Geographically Based (e.g. Rural, or Distressed Region)

Pros and Cons of Geographically Based Approach

| + Easy to Administer |
| + Transparent |

**However**

- Highly Inefficient Targeting
- Easily Politicized

Note: On Grid and Off Grid / Renewable and Non-renewable Considerations
C. Subsidies and Cross-subsidies

Structural Considerations in Designing Subsidies

4. Age Based (e.g. Elderly or Children in Household)

Pros and Cons

+ Easy to Administer
+ Transparent

However
- Highly Inefficient Targeting
C. Subsidies and Cross-subsidies

Subsidy Conditionalities

1. Technology

2. Performance
C. Subsidies and Cross-subsidies

Subsidy Conditionalities

1. **Technology**
   (e.g. Pre-Paid or Real Time Meters – Combinable With Other Approaches)

   **Pros and Cons**
   
   + Increases Efficiency
   + Appropriate Signals
   + Easy to Administer

   **However**
   
   - Initial Expense
   - Consumer Education
C. Subsidies and Cross-subsidies

Subsidy Conditionalities

2. **Performance**
   (e.g. Energy Efficiency, Consumption Cap, Participation in Other Programs)

   Pros and Cons

   + Increases Efficiency
   + Optimizes Consumer Benefit

   **However**
   - Complex Administration
   - Consumer Education
D. Enforcement Issues

1. Non-Technical Losses (e.g. Theft, Meter Tampering, Illegal Connections)

2. Non-Payment Issues
   - Distinguishing Between Those Who Cannot Pay From Those Who Do Not Pay
   - Bill Collection Policy
   - Disconnection Policy