Issues in Power Sector Reform

Presentation of Ashley C. Brown*

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Of Counsel, LeBoeuf, Lamb, Greene & MacRae
Goals and Timing of Sector Reform
Goals of Sector Reform

- Enhance Sector Efficiency
- Improve Service Quality
- Reduce Political Interference
- Reduce Opportunities for Corruption
- Put Sector on a Commercial Basis
- Enhance Ability to Attract Capital on Favorable Terms
Goals of Sector Reform, Con’t.

- Conform to International Pressure for Liberalization
- Reduce Government Debt and Fiscal Deficit
- Reallocation of Resources of the State
- End Under-Capitalization of Sector Ideology
- Reduce Influence of Labor Unions
Goals of Sector Reform, Con’t.

- Privatization of Risk
- Technological Innovation
- Change in Economies of Scale and Scope
Timing of Decisions: What Happens First?

- Privatization?
- Design of Market Structure?
- Enactment and Implementation of Regulatory Regime?
- Simultaneous Implementation?

- Compare/Contrast Brazil and Argentina
Privatization Issues
Privatization Models

- Allow Private Investments in State-Owned Enterprises (CEMIG, COPEL)
- Allow New Entrants to Be Private, but Leave Existing Assets in State-Owned (India, Indonesia)
- Privatize Some Assets (Zambia)
- Privatize All Assets (Argentina, Chile)
Tensions in Privatization

- Maximize Revenues from Sale of Assets vs. Market Optimization
- Maintaining Social Objectives in Market Environment
- Incentives for Productivity Gains vs. Mere Cost-Cutting
- Leverage of Developing Countries in World Capital Markets
Post-Privatization Risk/Reward Symmetry

- Socialization or Privatization of Risk

  **Investor Fantasy:**
  Socialize Risk – Private Gain

  **Consumer Fantasy:**
  Privatize Risk – Socialize Gain

- Heightened Perception of Risk Raises the Cost of Capital
Who Bears the Following Risks?

- **Uncontrollable Risks:**
  Currency Fluctuation, Natural Disasters, Economic Cycles

- **Partially Controllable Risks:**
  Taxes, Environmental/Safety Rules, Fuel Prices, New Obligations or Rules

- **Controllable Risks:**
  Operations, Construction, Technology
Post-Privatization Risk/Reward Symmetry, Con’t.

- “Dance of the Virgins: Favorable Treatment of Early Investors; Subsequent Efforts to Adjust (Australia, Argentina Gas, Rio Light)
- Reaction of World Capital Markets
Potentially Destabilizing Tensions in Sector Reform Implementation

- Maximization of Revenues vs. Optimizing Post-Reform Market (COELBA)
- Economic Efficiency vs. Social Objectives/Expectations (Cross Subsidies)
- Privatized Risks/Rewards vs. Socialized Risk/Rewards (I.e., Search for Symmetry)
Potentially Destabilizing Tensions in Sector Reform Implementation, Con’t.

- Reliance on Market Forces vs. Reliance on Regulation
- Factors Internalized in Tariffs vs. Factors External to Tariffs
Incentives: Pros and Cons

**Investor Incentives**
- Sovereign Guarantee
- International Arbitration for Dispute Resolution
- Dispute Resolution in Accordance with Law of Foreign Jurisdiction
- Price Cap Without Productivity Factor

**Destabilizing Effect**
- Invitation for Government Interference
- Demonstrates Distrust of Local Institutions
- Demonstrates Low Regard for Local Mores and Laws
- Emphasizes Cost Savings (e.g., Layoffs, Not Gains in Productivity)
Incentives: Pros and Cons, Con’t.

**Investor Incentives**
- Tariff Adjustments for Currency Fluctuations
- Take or Pay Contracts
- Highly Favorable Terms for Initial Investors

**Destabilizing Effect**
- Increases Distance of Investors from Local Economy and Customers
- Social Risk at Most Vulnerable
- Creates Unreal Expectations/Benchmark
Attainment of Goals is Highly Dependent Upon Institutional/Market Arrangements and Human Resources

- Nation’s Leverage in World Capital Markets
- Compatibility of Imported Models with Local Circumstances (Ukraine)
- Difficulty of Getting Sequence of Reforms Correct (Dhobal, Rio Light)
- New Skills Development for New role in State Sector
Attainment of Goals is Highly Dependent Upon Institutional/Market Arrangements and Human Resources, Con’t.

- Nature of Legal System (Independent Judiciary, Property Rights, Commercial Code)
- Viability of Independent Regulation (Budget, Politics, Enforcing Decisions)
- Political Environment (Organized Interests, Public Tolerance of Higher Prices)
- Performance of New Entrants
- Market Power and Anti-Trust Enforcement
Market Models
Restructuring Models
Electricity and Natural Gas Model: Competitive Capacity Market

- Monopsony (Single Buyer)
- Competitive Bidding/Negotiation for Generation
- Monopoly Power
- Reliance on Revenue Stream of Distribution Company or State Guarantees
- Long-Term “Take or Pay” Contracts
- Contractual Assignment of External Risks (Fuel Prices, Currency Fluctuation, etc.)
Restructuring Models
Electricity and Natural Gas Model:
Competitive Wholesale

- Multiple Distribution Companies/Obligation to Serve
- Competitive Energy Market
- Competitive Capacity/Hedge Market
- Distribution Monopolies That By Energy for Resale to End User
- Reliance on Financially Viable Distribution Companies
Restructuring Models
Electricity and Natural Gas Model: Open Retail Market

- Competitive Energy Market
- Competitive Capacity/Hedge Market
- Distribution Function Limited to Wires/Degree of Unbundling
- End Users Free to Pick Suppliers
Regulatory Issues
External Discipline on Industry Actors and Regulatory Symmetry

Only Two Types:

- Competition
- Regulation
Regulatory Symmetry

- More Competition Allows Relaxation of Regulation
- Less Competition Requires Stronger Regulation
The Four Phases of the Regulator’s Role in Competitive Electricity Markets

- Market Design Advocate
- Transition Management
- Monitoring (Continuing Role)
- Enforcement
Fundamental Policy Choices in Regulation

- **Economic Efficiency vs. Social Considerations**
  Key Social Considerations (Universal Service, e.g., Rural, Poor; Environment; Economic Development; Resource Preferences)
  Privatization Does Not Change Social Expectations

- Are Market Results Acceptable to Society?
- Rule-Based vs. Contract- (Concession) Based
- Rate of Return (Cost-Based) vs. Price Cap Regulation of Monopoly Services
- Anti-Trust vs. Proactively Competitive Approaches to Market Formation
- Deliberative vs. Administrative Decision-Making
Fundamental Policy Choices in Regulation, Con’t.

**Rule-Based**
- Regulator Can Change the Rules
- Procedural Safeguards
- Ability to Adjust to Changed Circumstances
- Short-Term Uncertainty
- Political Stability

**Contract-Based**
- No Unilateral Change
- Contractual Safeguards
- Pressure to Be Correct from Start
- Short-Term Certainty
- Political Stability, But Dependent on Concessionaire’s Flexibility
Fundamental Policy Choices in Regulation, Con’t.

- Rate of Return vs. Price Cap

**Rate of Return Formula**
(Capital Investment – Depreciation) ROR + Expenses

**Price Cap Formula**
(Cost Basis) RPI (-x?)

**Revenue Cap Formula**
(Cost Basis) RPI (-x?) X Projected Sales
## Fundamental Policy Choices in Regulation, Con’t.

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<thead>
<tr>
<th>Rate of Return</th>
<th>Price Cap</th>
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<tr>
<td>• Fact-Intensive</td>
<td>• Theory-Intensive</td>
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<tr>
<td>• Regulatory Review of Management</td>
<td>• Clear Boundary Between Regulation and Management</td>
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<td>• Direct Review of Profits</td>
<td>• Indirect Review of Profits</td>
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<tr>
<td>• Factors May/May Not Be Internalized</td>
<td>• Many, But Not All, Factors Internalized</td>
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Dynamics of Regulation

- Political Equations and Sources of Authority
- Independence and Accountability
- Constituents and Balancing
- Transparency
Dynamics of Regulation, Con’t.

Political Equations and Sources of Authority

- Executive/Legislative Policymakers See Benefit from Lack of Control Over Sector
- Executive Powers
- Legislative Powers
- Adjudicative Powers
Dynamics of Regulation, Con’t.

Credibility, Transparency and Ethics

- Integrity of Decision-Makers
- Integrity and Logic of Reasoning Process
- Integrity of Evidence Considered
- Integrity of Decision-Making Process
- Clear, Verifiable Rules
- Financial Accounting
- Market Operations

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Institutional Issues Regarding Regulatory Agencies

- Federalism/Decentralization of Regulatory Decision-Making
- Multi-Sector or Single-Sector Jurisdiction
- Commission or Single Decision-Maker
- Appellate Process (Courts or Government, or Arbitration)
- Consumer Protection (Price, Safety, Service Quality, Fraudulent Practices)
- Fulfillment of Social Objectives
- Intellectual Infrastructure
The Three Principles of Regulatory Processes: Transparency, Transparency, Transparency!

- Open Records
- Open Evidence
- Public Meetings and Hearings
- Public Access and Opportunity for Public Participation
- Opportunity for Discovery of Information from Regulated Companies
- Meaningful Advance Public Notice of ALL Proceedings and Intentions

**Ethics and Credibility**

- Integrity of Decision-Makers (Conflict of Interest, Gratuities)
- Full Articulation of the Reasoning Process for Every Decision
- Integrity of Evidence Considered
- Integrity and Credibility of Decision-Making Process
- Clear, Verifiable Rules
- Rules Governing Access to Decision-Makers (*Ex Parte* contacts)