State-Owned Enterprises: Justifications, Risks, and Reform

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Lecture Outline

- Benefits of Competition and the Role of Government in a Market Economy
- Justifications for State-Owned Enterprises
- Risks Involving State-Owned Enterprises
- Enterprise Reform and Privatization
- Summary

I. Benefits of Competition and Competitive Markets

- Economic theory has shown that, when certain conditions are met (see slide 6), competitive markets, with private firms supplying goods and services, do best at meeting consumer demands. Why?
  - Firms can freely enter and leave markets
  - Firms will compete with each other to offer goods and services
  - Competition allows new and better, or cheaper versions of the same, items to be offered
  - Competition helps reduce prices for consumers while increasing quality and choices available

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Examples of Successful Competition

- Entry of cellular telephone service in many developing countries
  - Made phone service available in remote areas
  - Reduced wait for connections in countries previously dependent on landline service
  - Service provided at attractive prices
- Opening of air service to discount carriers
  - Created inexpensive air travel options in Asia (e.g., Singapore to Malaysia and beyond)
    - Examples: Tiger Airways, Cebu Pacific, Jetstar)
  - In U.S., deregulation allowed new carriers offering service at lower prices: Southwest, Jet Blue; earlier on: People’s Express

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Why Competition Lowers Prices

- With competition, firms have incentives to lower prices to attract more customers.
- More firms enter market until a price is reached where it is no longer attractive for more firms to enter the market.
- At this price firms are usually "price takers," or they risk losing a lot of sales to other firms by raising their prices

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When Can Private Provision Be Inadequate: Market Failure

- Economic theory contends that competitive markets offer the most efficient outcomes when the following conditions hold:
  - A market for every good and service
  - Perfect competition (i.e., no agents have market power)
  - Uniform information (everyone knows what anyone knows)
  - Costless contract negotiation and enforcement
  - Uniform tastes and social welfare functions
  - Decreasing returns to scale production structures and no externalities
- What happens when these conditions are not met?

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Market Failure: Rationale for Government Activity

- When conditions are violated:
  - Imperfect information makes it hard for some markets to produce satisfactory outcomes through unregulated voluntary exchange (financial services, some insurance, arguably medical care)
  - Monopolies distort resource allocation, reducing supply of monopolistically produced goods
  - Externalities cause some goods to be produced in excess or insufficient amounts, relative to preferences
  - Some goods may not be supplied at all, or supplied in too small amounts, because markets have trouble limiting access or determining true demand
  - Markets may not yield an acceptable distribution of income

The role of government: examples of market failures

Type of goods	Issue	Examples	Problem of private provision
Risk pooling	Moral hazard (insurance leads to riskier behavior) and adverse selection (the riskier behavior seeks insurance)	Health insurance; deposit insurance; flood insurance; public pensions	Market may not exist or be unattractive (e.g., private annuities)
Public goods	Benefits can be enjoyed by many people simultaneously at zero marginal cost (non-rivalry); hard to exclude access (non-excludability)	National defense, police, environment protection, rule of law	Underprovided ("free riding" –individuals have no incentive to pay for sharing)
Good with externalities	Direct benefits from personal use and indirect benefits from use by others	Education, immunization programs	Underprovided (difference between cost, private benefit, and social benefit)
Natural monopolies	Large upfront fixed costs determine decreasing average cost of production	Water provision, electricity, mass transportation	One firm dominates the industry or no production
Asymmetrical information	Inability of buyers to assess sellers' information or services can create fraud	Securities markets, medical care	Without regulation, can lead to fraud, serious risks to health, panic

Government's role in providing services

If there is market failure, government may be able to provide the good at a more optimal level and price:

- Police, national defense, environment protection, courts, primary and secondary education, health care, utilities…

Key issue about government provision of goods:

- Need not require direct production: can use agencies, contracting out, leasing/concessions (for example: highways, airports, regulated private utility)
- Relative efficiency and costs of private vs. public provision of services must be compared (public provision may not be the best option)
- If private provision is used, supplier must be held to service standards. Regulation is needed if monopoly involved (e.g., supplier of electricity or telephone service)

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II. Justifications For State-Owned Enterprises

- Private operation is impossible
  - Declining marginal costs; pricing problems
  - Externalities require "special" management
    - Examples: airport authority, postal service
  - Risk or capital scarcity prevents private entry
  - Service is "essential" but consumers can't pay
- Public sector believes it can do better
  - National security activities
- Each justification requires careful review

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Example: Natural Monopoly

- Economies of scale: "bigger is cheaper"
- Efficiency impact of falling marginal cost
  - Efficient prices (price equal to marginal cost) fail to recover total cost
  - Public interest may require lower prices and larger output than private operation would allow
- Typical case: electricity distribution

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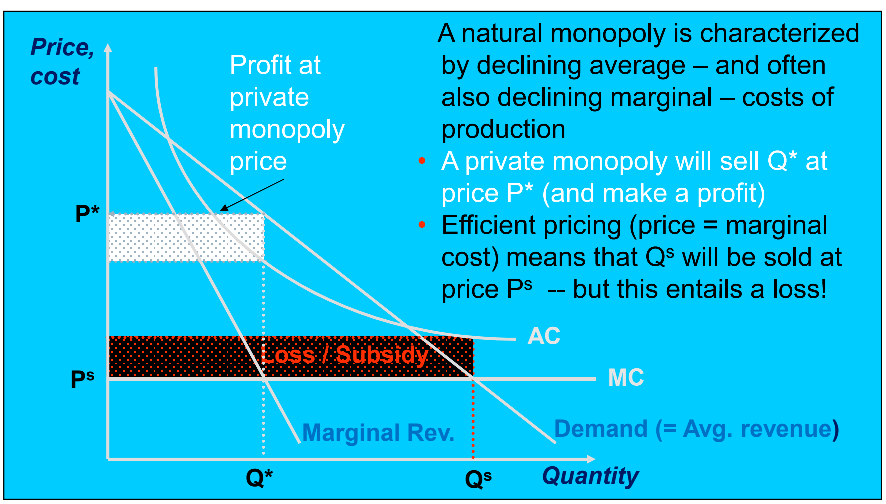
Natural monopoly

Social view



III. Economic Risks of State-Owned Enterprises

- Management and production incentives
- Effects on consumers
- Pricing strategies
- Financing issues
- Innovation and planning

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Efficiency Consequences: Managers' Incentives

- Enterprise managers often insulated from marketplace incentives, including:
  - Profit pressure from shareholders
  - Quality and price pressure from consumers
  - Innovation pressure from competitors
- Managers' financial incentives are limited:
  - Salary, bonus, and share incentives limited
  - Cost control may not be rewarded
  - Monopoly position may allow managers to "extract rents" from their positions

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Sources of Management Problems

- Principal-agent problem:
  Managers may focus on own position rather than public good
- Bureaucratic failure
  - Inappropriate selection of managers
    - Based on political relationships rather than managerial expertise.
  - Excessive outside interference
    - Limited managerial discretion → choose the “quiet life”.
  - Inappropriate incentives
    - Inadequate rewards for success → avoid risk.

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Efficiency Consequences: Procurement and Financing

- Cost may exceed competitive norms:
  - Wage and employment levels, supplies, rents
  - Investment decisions not always guided by economic considerations
- Government debt guarantees may subsidize costs and create unfair competition:
  - Crowd out private investment
  - Block competitive performance comparisons

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Effect of Market Structure and Soft Budget Constraints on Efficiency

- Sheltered market conditions
  - SOEs are often dominant players or have other advantages
- Soft budget constraints
  - Greater access to financing
  - Preferential financing costs
  - Less pressure to repay borrowed funds

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Effects on Consumers

- In monopoly the consumer has little choice
- Pricing may cause consumers to buy less, use substitutes, or do without
- Consumer power alone cannot effectively force the enterprise to improve

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Financing Issues

- Easy access to current budget transfers may hide losses
- Access to capital budget may represent a subsidy or crowd out other investments
- All budgetary financing, current or capital, should require explicit review

Efficiency Considerations, Long-Term Planning

- Without competition:
  - Product innovation may lag
  - Product quality may be poor
  - Innovation and progress may suffer
- Managers may work by tradition and "seek the quiet life"
- Compare the case of private provision in competitive markets, where competition focuses management
- Empirical work shows that, on average, provision by private firms is more efficient than by public enterprises, even in non-competitive markets*

*Shirley, Mary, and Patrick Walsh, 2001, "Private vs. Public Ownership: The Current State of the Debate," WB Res. Paper 2420.

IV. Reforming State Enterprises: Restructuring vs. Privatization

- Determine the desirable size and structure of the state enterprise sector
- Improve the operations of those enterprises to remain in the public sector

  (restructuring)
- Divest the rest (privatization)

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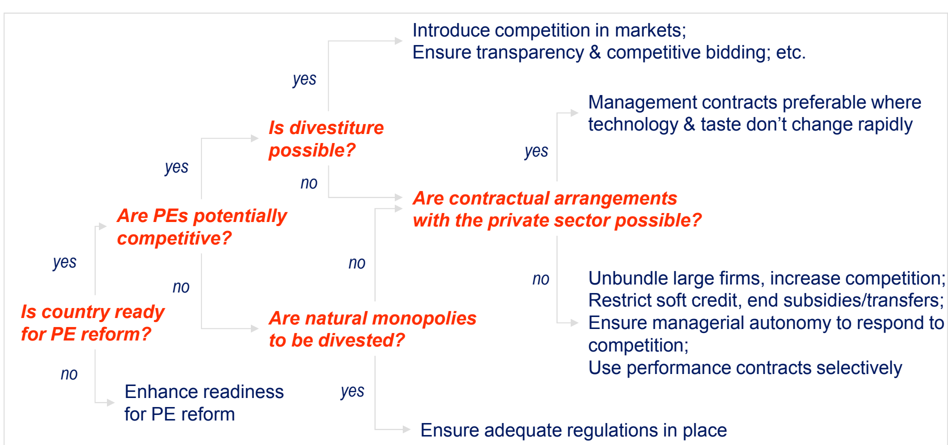
Decision Tree: Divest or Reform?



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Some Examples: Public Utility

- State-Owned Public Utility
  - Essential service
  - Large capital requirements
  - Declining cost of service with size
- Alternatives:
  - Public company supported by tariff revenue
  - Regulated private company

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Example: Postal Services

- State-Owned Postal Service
  - Essential service; universal right to service
  - Some consumers cannot be profitably served
  - Declining cost of service with size
- Alternatives:
  - Private parcel and express services
  - Ordinary mail as a state-owned enterprise, but self-funded from revenues

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Example: Airline

- Publicly-Owned National Airline
  - Brings prestige, but may lose money
  - Possible benefits to tourism
  - Hard currency earnings (or losses)
  - Employment opportunity (incidence questions)
  - Flag carrier provides more service
- Alternatives:
  - Private carrier(s) with pre-specified subsidy

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Example: Telecom

- State-Owned Telecommunication Corp.
  - Profitable monopoly, but may lose money
  - High capital cost to build or modernize; no firm may be capable
- Alternatives:
  - Privatize some or all telephone service
  - Regulated monopoly, service and pricing terms

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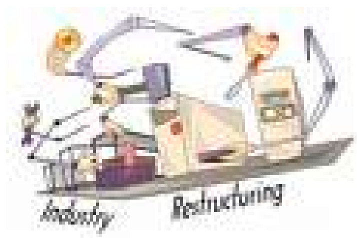
Restructuring: Key Issues

- Determining which enterprises to restructure, rather than divest
- Increasing enterprise efficiency
- Increasing responsiveness of enterprises to consumer demand



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A. Determining an appropriate range of activities

- Examples of good candidates for reform, rather than divestiture:
  - Companies with increasing returns to scale (decreasing marginal costs), e.g. railways, power grid, landline telecommunications
  - Activities with high linkages to the rest of the economy (e.g., airport or highway authority)

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B. Improving operations

- Adjusting the ground rules
  - Except for special operations, require enterprises to operate commercially
  - Set prices in commercial areas at cost-recovery level
  - Require serious labor bargaining
  - Insist on commercial purchasing standards ("arm's length" negotiations with suppliers and lenders); require borrowing at market rates
- Organizational changes
  - Separate commercial from public-service objectives
  - Separate supervision from the political process
  - Separate the state enterprise ownership function from the state's regulatory duties

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B. Improving operations, cont.

- Increasing competition
  - Allow domestic competition.
  - Allow foreign competition.
  - Develop competitive capital markets.
- Hardening the budget constraint
  - Reduce or eliminate subsidies.
  - Remove special privileges.
  - Move to market prices for output.
  - Put access to credit on a more commercial basis.
  - Allow inefficient enterprises to go bankrupt.

- Financial sector reform: Reduce opportunities for automatic access to loans

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C. Reforming Management: Issues

- Link management compensation to enterprise financial performance
- Consider allowing joint ownership of some enterprises, with foreign partners supplying new management and technology
- Performance vs. management contracts
  - Performance contracts
    - Set performance targets for managers, or allow profit sharing
  - Management contracts
    - Privatize the management of the state enterprise

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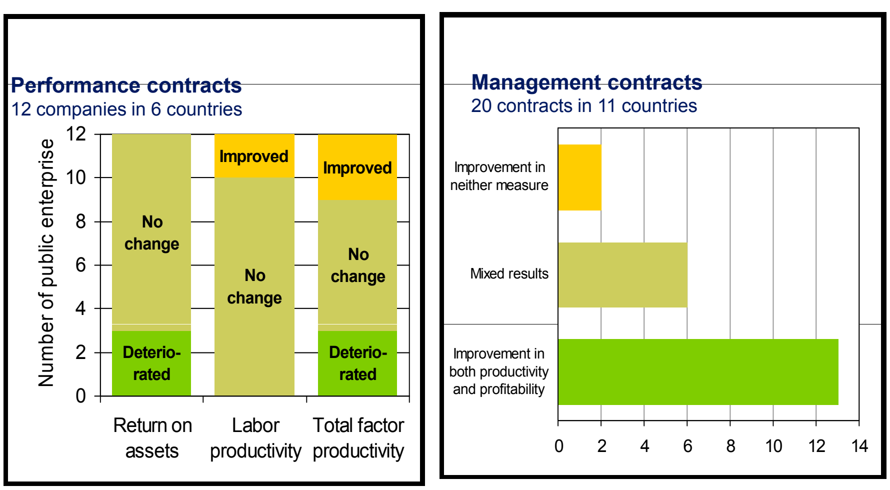
Do Performance or Management Contracts Work?



World Bank, 1995, *Bureaucrats in Business*, Ch. 3

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Possible Costs of Enterprise Reform (or Privatization)

- Higher prices and resulting consumer dissatisfaction
- Enterprise closures and loss of employment
- Adverse effects to specific regions and interest groups
- Backlash from rise in salaries for successful managers

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D. Privatization

- Trends
- How to privatize
- Impacts of privatization
- Governance

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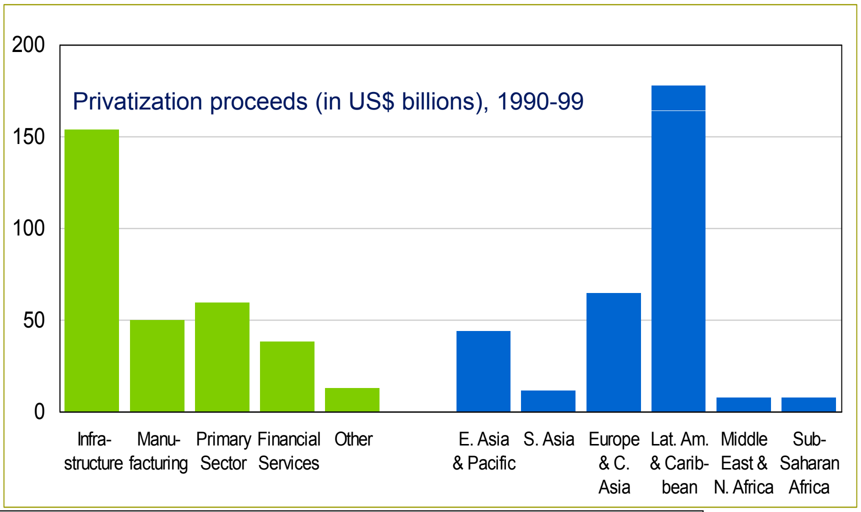
Privatization trends, by sector and region: Data from 1990s



NB: Privatization proceeds in Philippines, Japan, Thailand, and Republic of Korea totaled US$47.3 bill. in 1990-97.

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Kikeri and Nellis (2001)

How to Privatize

- Preparation
- Methods of privatization
- Possible consequences

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Preparing for privatization

- Securing support
- Restructuring the enterprise: often needed to attract buyers
- Designing a regulatory contract

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Methods of privatization

- Public sales and auctions
  - IPOs, public auctions, sales of shares of already corporatized or publicly traded enterprises
- Direct sales
  - Negotiated sales to strategic investors
- Management / employee buyouts
- Mass privatization
  - Voucher or coupon privatization
- Restitution

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Fiscal impact of privatization

- Will depend upon terms, including:
  - Investment guarantees
  - Employment guarantees
  - Sale price
  - Speed
  - Eligibility conditions for buyers.
- Often privatization programs are overloaded with objectives that are inconsistent.

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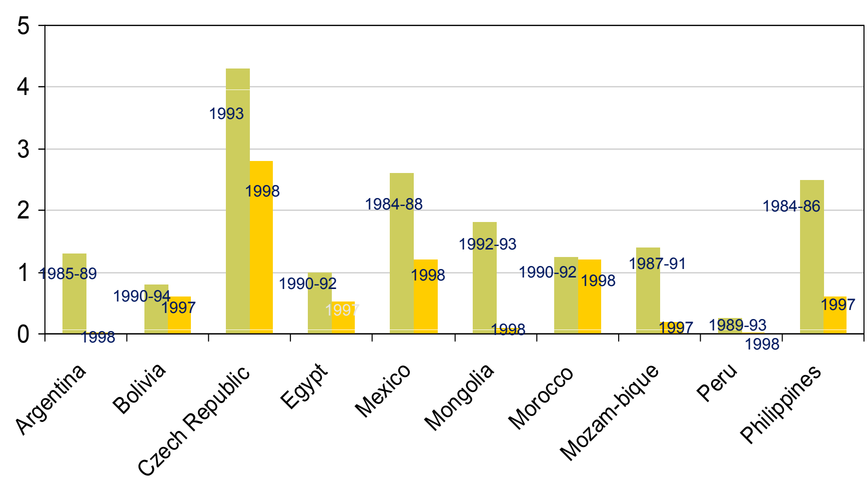
Impact on budgetary transfers and subsidies: Outlays (in pct. of GDP)



Note: Where State enterprises are profitable, privatization will eventually reduce revenue!

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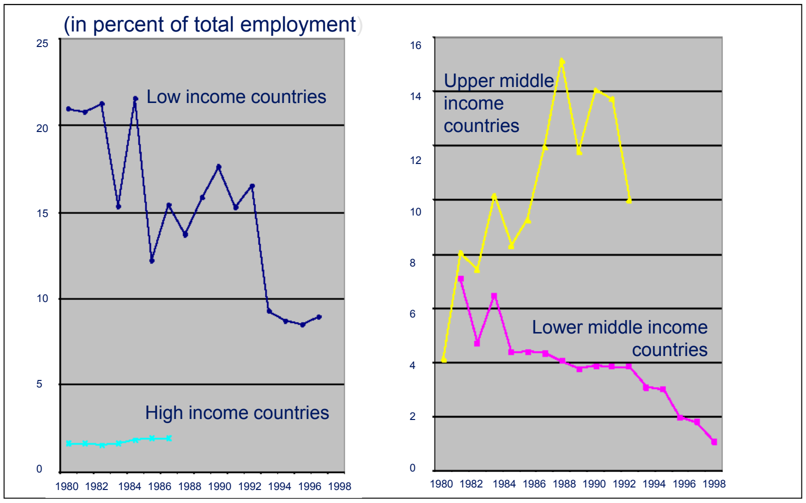
Davis *et al.* (OP#194, 2000)

Public enterprise employment



Sheshinski & López-Calva (2000)

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Social and fiscal impact of Privatization

Methods	Impact on employment/wages: Competitive environment	Impact on employment/wages: Protected environment	Impact on revenue
Sales			
Public sales	0 / +	- -	+ +
Negotiated sales	0 / +	-	+
Mgmt / employee buyouts	0	0 / -	+
Mgmt / lease contracts	0 / +	0 / -	+
Mass privatization	0 / +	-	0
Restitution	0 / +	- -	0

+ + Highly positive; + Positive; 0 No impact; - Negative; - - Highly negative.
*Refers to environment prior to privatization. For simplicity, assume removal of state protection after privatization.

Gupta, Schiller, Ma, & Tiongson (*J. of Econ. Surveys*, 2001)

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Effect of Privatization on Performance: Cross-country evidence

Results of 3 studies covering over 200 firms [a]

Indicator	Mean value *before* privati-zation	Mean value *after* privati-zation	Mean change due to privati-zation**	% change due to privati-zation		% of firms with improved performance
Profitability	9%	13%	+4%	46%	↑	68%
Efficiency*	97%	116%	+19%	19%	↑	82%
Investment	14%	19%	+5%	35%	↑	61%
Output*	94%	172%	+79%	84%	↑	80%
Employment	22,936	23,222	286	1%	↑	50%
Leverage	48%	44%	-5%	-10%	↓	67%
Dividends	3%	2%	+7%	231%	↑	80%

a. See also Shirley and Walsh (2001).

* Relative to year of privatization

** Change in percentage points.

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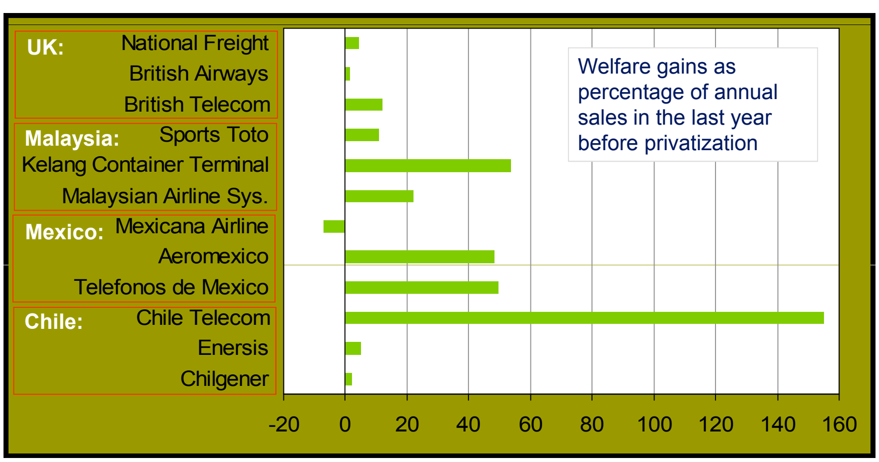
Megginson & Netter (*JEL*, 2001)

Impact on welfare: Case study evidence

12 firms in 4 countries



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Galal *et al.* (1994)

Summary of empirical evidence

- There is strong evidence that privatization has a positive effect on enterprise performance (in competitive sectors)
- There is strong evidence that privatization improves the fiscal situation
- There is strong evidence that privatization has a positive impact on financial sector development
- There is no evidence that privatization necessarily results in lower total employment (as opposed to employment at state enterprises)
- There is limited evidence on the impact of privatization on total welfare

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Measures to mitigate the social impact of privatization

- Even if overall unemployment doesn't rise with privatization, there may be serious distributional consequences.
  - Privatization will likely hurt some workers, at least temporarily; need social safety net.*
- Possible responses:
  - Earmarking proceeds to finance social safety nets
  - Promote sequential downsizing
  - Implement other labor market policies: severance payments, public works programs, job search assistance, training

*See Gupta, Schiller, & Ma (1999) and Kikeri (1997).

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Governance problems after privatization

- Many firms, once sold to the private sector, create externalities that lead to the need for regulation.
  - Monopolies, like utilities (water, gas)
  - Public health hazards (tobacco)
- Privatization can therefore lead to opportunities for corruption (say in the form of weak regulation) at this stage.
- Utilities in Latin America; privatized firms in the Russian Federation
- Beware: *A poorly designed privatization program may be worse than none at all.*

Summary

- Natural monopoly, externalities, risk, high cost provide bases for public ownership. *But*
- Many factors promote SOE inefficiency
- Addressing inefficiency may require management contracts, privatization, or a review of objectives and governance
- Empirical studies show that privatization often yields significant efficiency gains
- Must consider policies to assist adversely affected employees, e.g., severance payments, job search and training, etc.