Price Regulation in Fully and Partly Liberalized Markets

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Objectives of price regulation

- Financing objectives
  - Regulated operators must be permitted to earn sufficient revenue
- Efficiency objectives
  - Allocative efficiency
  - Productive efficiency
  - Dynamic efficiency
- Equity objectives
  - Operator-consumer equity
  - Consumer-consumer equity
  - Operator-operator equity

Areas of application

- Prices for end-users
  - Approach and intensity of regulation depends on degree of effective competition
- Prices for intermediate products (interconnection, leased lines)
  - Regulation will be necessary for quite some time to come

Different approaches

- Discretionary price setting
  - Typical for former monopoly situation
- Price setting for particular services based on costs (rate of return regulation)
  - Currently widely used for prices of interconnection services (also in fully liberalized markets)
- Price cap regulation
  - Currently widely used for prices of end-user services

Discretionary price setting

- Disadvantages :
  - Interventionist
  - Lack of economic criteria
  - Inefficient price structures
  - Risk that financial objective for operator is not fulfilled

Discretionary price setting

- Typical results:
  - Low access and local calling prices
  - High prices for long-distance calls
  - Very high prices for international calls
- As result of low access prices, no incentives for operator to roll out network
  - Long waiting lists
  - low quality in access network

Price setting for particular services based on costs

- In contrast to discretionary price setting, explicitly based on economic criteria
- Used to be dominant mode of regulation in USA
- Currently mostly applied to new services, in particular interconnection services
- High demands in terms of data requirements
- Top-down approach on the basis of data provided by regulated firm
- Bottom-up approach on the basis of analytical cost models

Price setting for particular services based on costs

- Issues related to top-down approach:
  - Departs from cost data of operator
  - Question whether cost data reflect an efficient operation
  - Cost elements not caused by regulated service need to be eliminated

Price setting for particular services based on costs

- Issues related to bottom-up approach:
  - Relevant technology must be known so that it can be implemented in a cost model
  - Parameters for cost modelling (prices of investment goods, average usage patterns, etc.) must be known
  - While feasible for cost of investment, modelling of cost of operations still problematic

Price setting for particular services based on costs

- Disadvantages if applied to end-user services on a broad basis (makes no sense if there is competition):
  - Lack of incentive to minimize costs
  - Lack of innovation
  - Lack of pricing flexibility
  - Costly in terms of regulatory and management attention
- Above less of a problem regarding interconnection services

Price cap regulation

- Goes back to Prof. Littlechild of the UK
- First used to regulate BT’s retail prices, starting 1984
- Now most widely used approach to regulate retail prices for end-users
- Was introduced to mitigate disadvantages of regulation based on costs
- Approach to be used before price finding can be entirely left to the market

Price cap regulation

- Basic price cap formula:

allowable price for upcoming period
= starting price + I – X

where I = inflation factor for the period
X = productivity factor

Price cap regulation

- Example:

  At end of 2001 price = 100
  Projected I = 5 and X =3
  => Allowable price change for 2002 = 2 or
  => Allowable price for 2002 = 102

- In real applications, weighted average over price changes for relevant basket of services
  - Price change of 2 above would equal that weighted average

Price cap regulation

- Required inputs:
  - Initial prices for services in relevant basket
  - Weights (usually services' shares in turnover
  - Inflation factor)
  - Productivity factor
  - Design of baskets (which services to be included, which services grouped in same basket?)

Price cap regulation

- Advantages:
  - Incentives for greater efficiency
  - Greater pricing flexibility
  - Reduces regulatory intervention
- Disadvantages:
  - Does not have a mechanism to prevent anticompetitive pricing
  - If values for I and X are wrong, can miss objectives (financing, efficiency, equity) very badly

Particular issues of price regulation

- Rebalancing of prices according to actual costs
- Need for pricing options which make for efficient use of network
- Need for self-select pricing packages which make services affordable for low income earners

Summary

- Discretionary price setting an thing of the past
- Price setting for particular services based on cost necessary for interconnection etc.
- Price cap regulation suitable approach for retail services – as long as competition not strong enough
- Promote tariff structure that enhances efficient use of the network and makes services affordable also for low users