

Price Cap Regulation

Welcome
Bien Venido
What's up man?
Wilkom

Price Regulation



Topics of Presentation

- The Price Regulation concept
- Price Regulation structure
- USA, UK experience

Rate of Return Regulation

- 'Cost plus' regulation that limits earnings
- Low incentives for efficiency, encourages 'gold plating'
- Inefficient pricing (cross-subsidy)
- Administratively burdensome

Price Regulation Concept

- PR plan has design flexibility to advance firm's goals

PR plan needs to address:

- Universal Service objectives
- Incentive opportunity and ratepayer safeguards
- Rate rebalancing and pricing flexibility
- Competition
- Administrative burdens

Price Regulation Concept

- PR emulates the competitive firm model
- PR aids in the transition to additional regulatory streamlining in the future

Monopoly -->

Price Reg -->

Deregulation

Price Regulation Concept

Telco Opportunities

- Move towards competitive firms' earnings incentives
- Increased pricing flexibility and rate rebalancing
- Higher earnings opportunity will increase attractiveness to investors
- Reduced administrative burdens

Price Regulation Concept

Customer Benefits

- PR pricing rules limit future rate increases
- PR is 'win - win' outcome. The telco prospers if it efficiently provides the right services at fair prices.
- New service features and discount options offered
- Commitments to Universal Service and service quality continue

Price Regulation Concept

■ PR plan development

- Identify, prioritize short term needs to be addressed
- Position and design PR plan as transition vehicle to reach firm's long-term objectives
- Develop negotiating strategy and PR 'roll-out' campaign

Price Regulation Concept

- A pricing rule limits the overall rate changes
PR is 'cost-based' regulation, not 'cost-plus' regulation
- $\% \text{ annual aggregate rate change} =$
 $\% \text{ cost inflation} - \% \text{ efficiency improvement target}$
- A reasonable annual percent efficiency improvement hurdle is critical. It is the incentive engine.

Price Regulation Concept

- Productivity refers to how economically the firm manages its productive resources.
- A total productivity measure, i.e. % efficiency improvement target for the telco, is used to limit overall price changes in most PR plans.
- Productivity is an economic concept that can be gauged from past financial and operating reports.

Price Regulation Concept

- 'Economies of Scale' lead to productivity gains.
- Demand growth raises revenue but costs per unit fall so total cost rises more slowly.
- But inflation raises cost per unit and total costs

Price Regulation Concept

- The PR annual pricing rules set the “Price Cap” limits for overall rates. This rule preserves the first share of telco productivity benefit to ratepayers.
- Telco can improve earnings if it can be **more efficient** than previously under ROR regulation

Price Regulation Plan

- Annual Pricing Formula
- Annual Productivity Improvement Hurdle
- Service Basket Structure (service groups)
- Rate Change Flexibility
- Adaptability to Competition
- Tariff filing, New Services, Exclusions and Limits
- Recovery of Exogenous (extraordinary) Cost
- Earnings Sharing Option
- Authorized Rate of Return Represcription

PR Annual Price Cap

- Annual maximum total % rate change (Price Cap) =
$$\% \text{ annual inflation} - \% \text{ productivity gain target}$$

$$[+ / - \% \text{ exogenous cost}]$$
- RPI (UK), CPI (USA) are broad annual inflation measures in use

PR Annual Price Cap

- The price formula's annual % productivity hurdle can vary by Service Basket (grouping)
 - this can be used as a negotiating vehicle

Telco PR % Productivity Hurdle

- Historical Telco productivity is volatile
- The state of the economy directly affects productivity
- Historical productivity studies can be contentious ‘black box’ exercises
- Historical study results are only a starting point for a negotiated productivity target for PR plan.
- “Unreasonable” productivity targets destroy incentives and deter new investments

Price Regulation Rules Affect the Cost of Capital

- McKinsey Consulting study indicates unduly burdensome or inflexible rules can reduce the “market value” of the telco from investors’ viewpoint.
- “Unattractive” plan can raise cost of equity capital by 20% or more
- Potential plan negatives:
 - ❖ Unreasonable efficiency improvement target (%X)
 - ❖ Unreasonable constraints on rate flexibility for incumbent vis a vis new competitors
 - ❖ Unreasonable burdens re subsidies, other service obligations

Telco PR % Productivity Proposal

- PR plans often have an initial trial period and a performance review to make rule adjustments.
- If a telco is 'too successful', the prior rules may be viewed as too lenient.
- Earning's sharing is often used in combination with the productivity target.

Service Basket Format

- Structure service baskets groupings to facilitate flexibility for impending competition
 - POTS (socially protected) services often set “rate freeze” or other limits for a few years. Extent of this concession must be counterbalanced with more rate flexibility elsewhere.
 - Non-competitive (Non-POTS) services - “%X” hurdle applies
 - Competitive services - NO “%X”, competition limits prices

Service Basket Groupings

- Multiple service baskets allow different degrees of flexibility, from low (POTS) to high (competitive)
- Need conditions for services originally in “non-competitive” basket to transfer to “competitive” basket
- Competitors will be adverse to telco pricing flexibility, may assert unfair competition (predatory pricing)

Service Basket Structure

- Fewer Baskets means greater pricing flexibility
- Baskets are organized by some logic, e.g.:
 - Basic local service, Non-basic, Competitive
 - Residence, Business, Miscellaneous
- PR plan negotiations can result in compromises on Basket structure and other sub-basket restrictions.

PR Rate Change Flexibility

- The Price Cap Formula controls overall rate changes
- Rate management within each Service Basket is an **essential core** PR feature *and benefit to telco*

Rate Change Flexibility Example

- Cellular service is 10% of basket revenue and its price is lowered 5%
- This drop would permit offsetting changes like
 - a) a price rise of 2.5% for a service at 20% of revenue or
 - b) a price rise of 12.5% for a service with 4% of revenue

Adaptability to Competition

- Rates adjust more quickly to market conditions
- Rate reductions provide the capacity to raise other rates
- PR plan proposes “Special Contracts”

New Services, Tariffs, Exclusions & Limits

- New services introduced under favorable conditions
- Tariff filings which conform to the PR rules are deemed 'valid, just and reasonable'
- Services currently deregulated remain so

Extraordinary Cost Recovery

- Unavoidable cost changes beyond Telco's control may be recovered
- Business cost changes in the economy will become reflected in the inflation rate

Earnings' Sharing Option

- Regulators have used this rule to limit 'excessive' earnings
- Regulators use earnings sharing as a safeguard in case the PR rules were set too 'easy'
- Earnings sharing reduces PR incentives by diluting the benefits to the Telco for efficiency gain and can introduce undesirable behaviour
- A shared portion of the 'excess' earnings are refunded in the form of additional future rate reductions

Earnings Sharing Rules

- Can get lower efficiency improvement target (X) because consumers will “share” 50% (e.g.) of higher earnings if realized
- Best feature is tradeoff for lower X , and it also justifies a symmetric low-end earnings “safety net” as telco downside earnings protection
- BAD FEATURES
 - Reduces incentive payoffs to telco from efficiency gains
 - Hard to eliminate later in plan (later “rate shock” issue)
 - Continues a ROR feature within “incentive” regulation

Rate of Return Represcription

- Telco must offer globally competitive financial returns
- Tariff rates at the end of ROR regulation must be based on an appropriate financial rate of return
- **Regulator's often impose a financial 'buy-ins' or other service improvement commitments on telco as part of accepting PR deal.**

Term of Initial Plan & Performance Review

- Often an initial 4 year period before comprehensive review
- Review runs risk of tighter rules if earnings are up but offers opportunity to re-negotiate other changes
- Rule to allow for an early plan review or temporary waivers for extraordinary circumstances may be desirable
- Desirable to minimize other reporting/monitoring oversight requirements

Price Regulation Experience

- Generally, PR earnings are higher
- Generally, service quality remains high

Price Regulation Experience

- PR now has favorable performance record
- Many PR plans run for an initial trial period
- Cost of capital represcription often at outset
- ‘earnings sharing’ rules are sometimes set to limit ‘excessive’ earnings

Price Regulation Experience

- At PR performance reviews, rules are often tightened
- FCC raised the % productivity hurdle and other rules
- OFTEL raised the % productivity hurdle over time
- New restrictions have been added, others dropped

US FCC

- Price Caps from 1991 for Long Distance Access
- Four service baskets, same “X” by basket, plus sub-indices limiting individual services to “ (RPI-X)+5, -10%” per annum
- Common Line basket now monthly flat charge to customer
Shifted high per minute charge to flat per line charge over 5 years. Shift was on “revenue neutral” basis mthly. line charge capped at US\$3.50 res., \$6.00 single line bus.
- Effective July 2000 access charges per minute further reduced by raising flat per line charge to \$4.50 which is direct billed to end user

Oftel - BT Price Regulation

- “RPI - X%” now covers only 25% of BT retail revenues
- Controls only connection, line rental, local, national, international calls
- Current 4.5% retail X expires July 31, 2001
 - Max. rise of %RPI for residence line rental charge
 - Per Call charges must be lowered to offset line rental charge rises
 - Compliance based on price change for lower 80% of res.
- Small business “safeguard” cap requires a basic calling package be available at same level as residence reference tariff

UK Price Regulation

- “Safeguard” cap on retail price of analogue private circuits at 65 kbit and lower capacity. NO limit on higher cap circuits because hi-cap competition is present
- THREE OVERALL BASKETS
 - #1 COMPETITIVE Operator Assistance, new services
 - #2 PROSPECTIVELY COMPETITIVE during plan’s period
 - IDD and inter-tandem conveyance
 - Inter-tandem transit
 - Access to Op. Services Info System, Directory Assistance System and phonebooks

UK Price Regulation

- #3 NON-COMPETITIVE BASKET during plan period
- RPI - 8% cap to each service sub-basket
- “Safeguard” cap of RPI+0% on each service and on each time-of-day band
 - “General Network”: Call origination, local-tandem conveyance, single transit
 - “Call termination”
 - “Interconnection specific”

TSTT Price Regulation Plan (Preliminary)

- Service Baskets with different price cap limits
 - basic services (POTS)
 - non-competitive services
 - (predominantly) competitive services
- Proposes reasonable rate flexibility intra basket
 - rebalancing, restructuring to move to better rate/cost alignment
- Universal service commitment continues
 - proceeding needed to address access subsidies
 - affordable basic service option to be maintained
- Ratepayer productivity benefits
 - provide (%RPI - %X) rule with '%X' in range of US/UK Telco experience.