

# **SESSION 1: Price regulation of broadband services**

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**Jim Holmes  
ITU Expert, Australia**

# Agenda

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- **Price Regulation**
- **State of Cost Modelling**
- **Regulatory risks and limitations**
- **Entry level service regulation**
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# Presentation aims

- The aim of this presentation is to examine the ways in which regulators might usefully approach the pricing of broadband services to achieve investment, coverage, service adoption and affordability goals while at the same time not distorting (or even retarding) broadband market developments
- The sources contributing to the views in this presentation are:
  - “Regulating Broadband Prices” a paper which I co-authored and which is part of the Broadband Series published on the ITU website in April 2012 ([www.itu.int/broadband](http://www.itu.int/broadband))
  - Consulting to regulators on price regulation
  - Providing expert advice on establishing and implementing effective national broadband policies and plans in Africa and the Asia Pacific Regions

# National Broadband Objectives

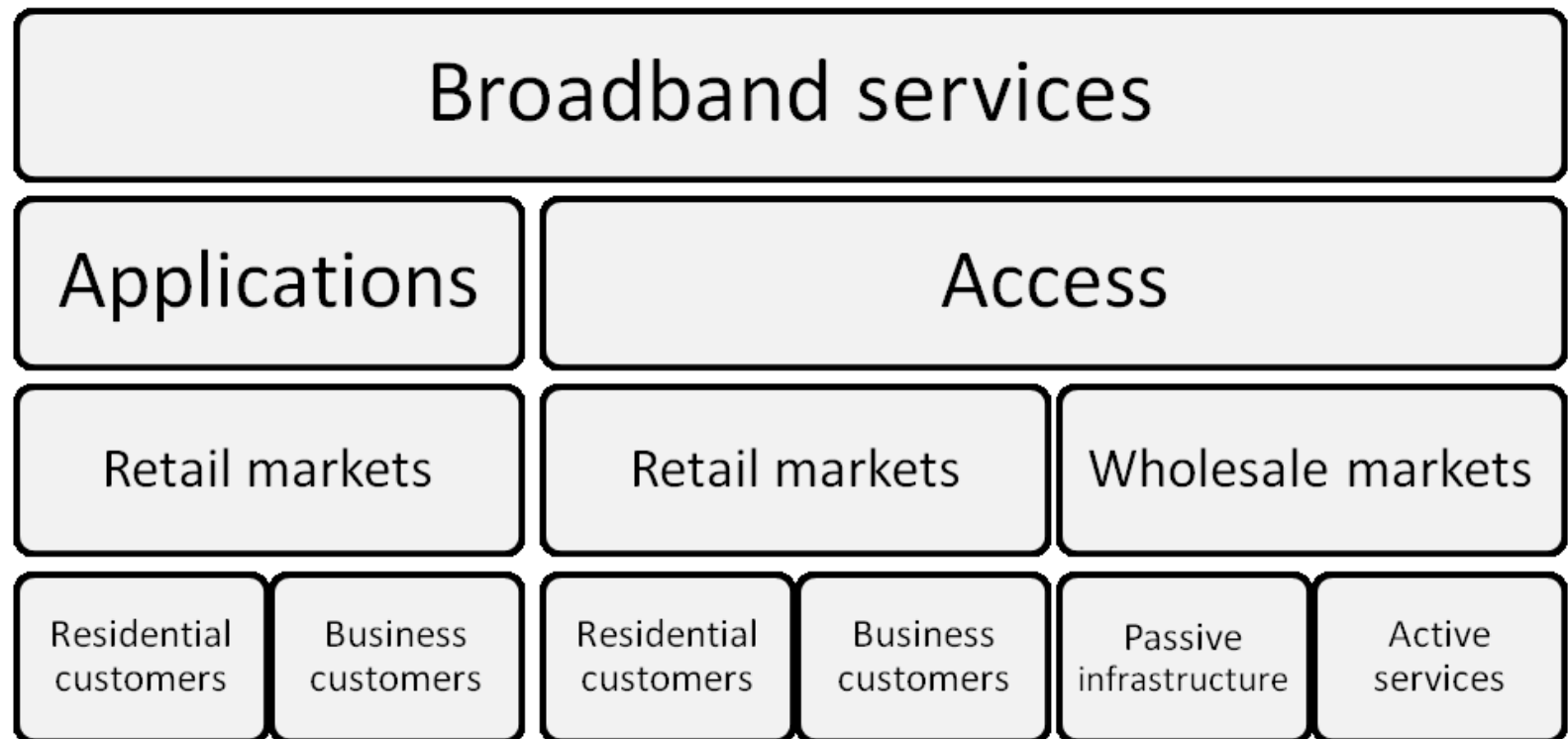
- All countries are seeking to develop and implement national broadband policies and plans. Invariably these are concerned not only with new infrastructure investment but also with availability, penetration and affordability of services
- Most national broadband policies look to the private sector to drive essential investment in new broadband infrastructure, although this may be assisted by Government funding of fibre access (e.g. Australia, New Zealand) and of fibre backbone infrastructure (e.g. Tanzania and Lesotho)
- Government has an important role in lead applications - such as those relating to e-Government suites and in Health, Education and other service delivery

# Price Regulation

- Governments and regulators are seeking high levels of service adoption at the earliest time on a mass basis including in provincial higher cost / lower income areas
- There is almost an automatic tendency to consider some form of price control to increase affordability and therefore levels of service subscription
- But this course has many complexities, dangers and pitfalls – many of which are not fully appreciated by enthusiastic regulators eager to regulate

# Wholesale v Retail (1)

***Where might a regulator intervene to do the most good?***



A conceptualisation of broadband services and markets

## Wholesale v Retail (2)

- The mass market for broadband in developing economies will be served by mobile operators as they roll out 3G and later generation technologies
- Although oligopolistic, mobile markets are generally competitive and that keeps prices down. This does not apply to retail fixed broadband markets
- Wholesale services that are essential inputs for both fixed and mobile retail broadband services are either non-existent or not competitive. This is where regulation is warranted to ensure fair and reasonable access by downstream retailers. Where that involves price control it should reflect efficient costs
- Price control is only justified when the 3 criteria test is satisfied

# Three Criteria Test

Under the EU three-criteria test a particular market will be considered susceptible to ex ante regulation (of which price control is an example) if:

- 1) it has high and continuing barriers to entry;
- 2) is not tending towards a sustainable competitive market; and
- 3) ex post regulatory controls are unlikely to be sufficient to address concerns associated with market dominance.

However, even if a particular market fulfils all three criteria, it does not automatically mean that ex ante regulation is necessary in that market. The regulator may still forbear to intervene and instead monitor the way the market develops, particularly if there are other constraints that might discourage exercise of market power.

# State of Cost Modelling

- Cost modelling for mobile networks is well established. Mobile networks are all sufficiently alike for generic models to be adaptable for specific market use. But mobile is not the problem, unless we are talking about call termination rates
- In fixed broadband networks fixed and overhead costs represent a very high proportion of total costs. This means that unit costing outcomes are less reliable. Determining unit costs depends on price strategy and elasticities of demand. These assumptions are difficult for regulators to work with and to model in practice

# Regulatory risks and limitations – wholesale price setting (1)

There are many risks and limitations for price regulation of wholesale broadband services (mostly manageable):

- Regulatory approaches poorly reflect risk (which is normally reflected in the risk-adjusted cost of capital) and new capital investment is vital
- Broadband markets are not fully mature, still developing – so demand is relatively volatile
- Access pricing is based on capacity and QoS. But the access costs do not increase proportionately to increased capacity. Models may not help
- Some input costs are beyond the regulator's control – such as the base costs of submarine cable capacity

# Regulatory risks and limitations – wholesale price setting (2)

... NRAs should estimate investment risk inter alia by taking into account the following factors of uncertainty:

- (i) uncertainty relating to retail and wholesale demand;
- (ii) uncertainty relating to the costs of deployment, civil engineering works and managerial execution;
- (iii) uncertainty relating to technological progress;
- (iv) uncertainty relating to market dynamics and the evolving competitive situation, such as the degree of infrastructure-based and/or cable competition; and
- (v) macro-economic uncertainty.

These factors may change over time, in particular due to the progressive increase of retail and wholesale demand met. NRAs should therefore review the situation at regular intervals and adjust the risk premium over time...

***European Commission 20 September 2010***

# Regulatory risks and limitations – retail broadband price setting

There are even more risks and dangers for regulatory intervention in retail broadband service pricing, such as –

- Retail price strategies – retail access is not a single commodity service. The risk is that innovation and service differentiation may be undermined
- Access and applications bundling – drives penetration and usage – but is not part of the modelling
- Usage patterns after initial service adoption – increased usage and demand for more reliable service with increased data rates. Cost models poorly reflect innovative commercial pricing strategies

# Entry level service regulation

- Some countries are now considering whether retail price regulation for affordability and to promote greater take-up by marginal customers might not be more effective and less intrusive if focussed on identified entry level broadband access services
- This might be justified notwithstanding a degree of competition in the market because oligopolistic price competition tends to focus on short term and promotional offers and on encouraging switching. Lower value marginal customers may be overlooked
- Note that entry level services are not designed by the regulator – they are ideally based on the current menu of offerings within the sector

# How entry level regulation works

**Step  
1**

**Select entry level offering at minimum threshold data rate or better**

**Step  
2**

**Confirm appropriateness of current price through benchmarks, cost studies, legacy pricing, etc**

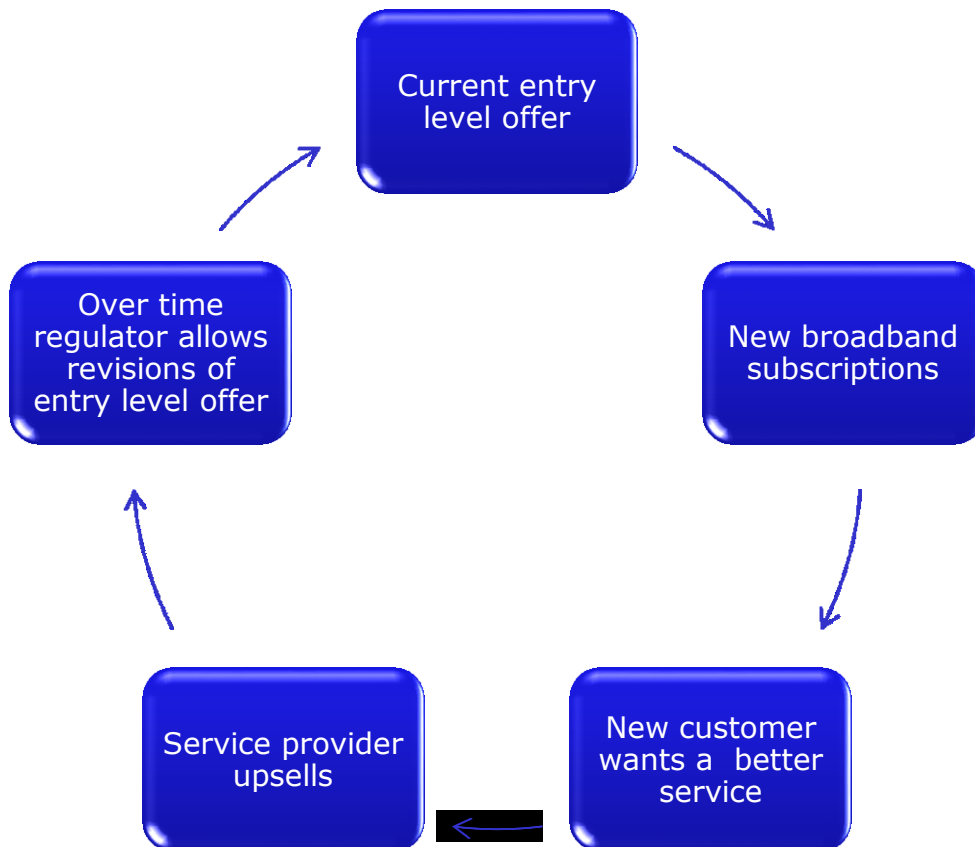
**Step  
3**

**Establish price cap and service obligation – cap might be tighter if current price is too high**

**Step  
4**

**Review the appropriate entry level offering and the cap regularly**

# How the market is expected to respond to entry level price controls



**Service Provider is free to:**

- a. Design and price all other broadband services**
- b. Compete with other entry level services in the market**
- c. Up-sell entry level customers to higher value services**

**Entry level service might have lower profit margin but is not expected to be a loss service**

# Conclusions

1. The premise of this presentation is that regulators should refrain from regulating retail prices in broadband markets, particularly while those markets are still developing, while further significant private sector investment is still required, and while demand remains volatile – and especially if competition is largely effective.
2. Wherever possible, reliance should be placed on the price clearance mechanism of competition, with ex post intervention if anti-competitive behaviour occurs.

## Conclusions - continued

3. If some form of ex ante price regulation is necessary based on the identification of a specific market failure, that regulation should focus on relevant wholesale markets – ideally markets for access to passive infrastructure – as far upstream in the supply chain as practicable.
4. Retail price regulation might usefully focus on entry level broadband offerings thereby encouraging service take-up by marginal customers and leaving service providers free to innovate in price/service packaging and other ways with higher value broadband offerings.

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