## Asymmetric regulation, including price regulation

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## Agenda

- Context of asymmetric regulation
- Rationales
- Defining markets and dominance
- Consequences of non-dominance
  - Tariff regulation
    - □ Approaches to tariff regulation
  - Interconnection

# What are the conditions for optimally functioning markets?

- No barriers to entry and exit
  - Multiple buyers & sellers
  - No market power
- Homogenous products
- Perfect information
- □ Rational participants (homo economicus)



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#### Conditions for workable markets

- Markets that do not satisfy information and rationality conditions
- Are telecom markets workable?
  - But telecom markets do not satisfy even the remaining conditions
    - □ Barriers to entry and exit
      - Scarce resources
    - □ Increasing returns; essential facilities
    - □ Potential to extend market power from one market to another
    - Peculiarities of call termination: "market of one"

### Best practice

- ☐ Infrastructure to be governed under the principle of "competition wherever possible; regulation where necessary"
  - Unbundling potentially competitive elements of integrated government owned monopolies
  - Introducing competition in markets that allow it
  - Regulating to ensure "level playing field" for investors and to protect consumers

#### Regulating to enable competition

- Regulation to ensure "level playing field" for investors and to protect consumers
  - Safeguards to prevent extension of market power into competitive markets
     Structural vs behavioral
  - Control market power in monopoly markets through asymmetric regulation



#### Rationales for asymmetric regulation

- There is potential for an operator in a defined market to
  - be of sufficient relative size or
  - control access to essential facilities
    That it can act independently of market forces and constrain the development of competition

#### Rationales for asymmetric regulation

- ☐ Conventional regulation may be impractical in multi-operator market
  - Sri Lanka has four (going on five) mobile operators
  - Each operator had around 45 tariffs
  - Workload for handling 45x4 (45x5) tariffs every year (or more than once a year) would be unmanageable

### Key principles of implementation

- Keep it simple
  - Operators need certainty and predictability for long-term investments
  - Does not make too many demands of regulatory staff
- □ Focus on specific markets
  - Move to a focus on markets, not operators
- □ Allow for changes to reflect market developments
  - Operators can move out of dominance & others can move in

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#### Define markets

- Most countries define fixed local, national and international as separate markets
- ☐ European Union defines 18 markets
  - Too complex for developing-country markets
  - But noteworthy that fixed and mobile markets (origination, termination and roaming) seen as distinct

## Starting point

- Services
  - Local retail voice
  - National retail voice
  - International retail voice
  - Mobile retail voice
  - Data
- Infrastructure
  - Local fixed access
  - Domestic backbone wholesale
  - International access

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# Market definition (and changes) must be through public consultative process

- May need assistance of expert consultants to conduct review
- ☐ Resist pressures to
  - Define too many markets
  - Change market definitions frequently



## Market dominance identified by

- Control of essential facilities that are
  - Controlled by one or a few operators
  - Are needed for the supply of service, and
  - Cannot be economically replicated

#### OR

- □ Ability to act independently of market forces
  - Market shares
  - Structure of market
  - Potential for market entry, etc.



#### Market share

- □ How calculated?
  - 1. Customers?
  - 2. Traffic volume?
  - 3. Revenue?
- 1 is easier and may be best for retail markets
  - But is a serious problem in mobile markets whuch lack definitions of customers
- 2 and 3 (preferably defined formula) for wholesale markets

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# Market share as a trigger for dominance

- ☐ EU used 25%; now 40%
- □ If all or most operators trigger dominance test, threshold may be set too low
- Best not to use market share alone
- Market structure indicator threshold
  - $\blacksquare$  HHI= $a^2+b^2+c^2+d^2$
  - A simple indicator used by US DoJ and others



# Consequences of non-dominance designation

- Forbearance from tariff regulation (may be problematic under existing laws in specific countries)
  - Minimal filing requirements
    - India is classic case; almost total price forbearance but best (with PK) on availability of price information
- No requirement for RIOs
  - Not necessarily cost-based interconnection
- Purpose of asymmetric regulation is reduction of regulatory burdens, not increase



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## How does forbearance on tariffs work when there is a dominant player?

- Fixed entrants in Sri Lanka not subject to tariff regulation 1997-2002 (extended)
  - Combined market shares of 2 entrants 13-14% until recent burst of CDMA-based growth
    - □ Tariffs shadowed incumbent's tariffs during rebalancing period
    - No major problems from public and legislature
      - Except a little hiccup from a commerce minister in 2003

# How does tariff forbearance work in a market with a dominant player?

- □ By 2006 H2, entrants had gained a combined market share of 29%
- □ But Incumbent was still able to offer the identical CDMA product at almost double the connection charge
  - Only effect of market pressure was that Incumbent voluntarily offered a 10 month installment plan
  - → No reason to forbear on the incumbent

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# How does tariff forbearance work in a market with a dominant player?

- □ Another reason to continue regulating incumbent's tariffs
  - If incumbent has captive markets it can finance cross subsidies from, it can engage in anticompetitive cross subsidies, or even predatory pricing
  - Floors matter more than ceilings (or at least as much)
    - ☐ Usually, tariffs are precise descriptions of the service and a specific price
      - TRAI, unwisely, put ceilings on incumbent prices in rural India, but no floors → discouraged entrants

# How does tariff forbearance work in a market with a dominant player?

- □ Incumbent's complaint will be that the entrants are stealing corporate customers using discounts and packages that it is precluded from offering
  - Solutions?

# Price regulation under asymmetric regulation

- Not abolished
- Work load shifts from regulating all prices to
  - Setting dominant players' prices
  - Dominance reviews
- Dominant players' prices still need to be determined
  - Two choices:
    - □ RPI-x (price cap)
    - □ Cost-based

# Short answer on how to regulate prices

- □ Do RPI-X if you can get away with it
  - Bad theory but practical
  - In actual fact most RPI-X decisions underpinned by cost calculations in order to reach the X; or X is determined by raw negotiating power
- ☐ If you can use benchmarking (basket methodologies best), do so
- ☐ If you need cost-based, forward-looking is theoretically better than historical
- But, best is getting rid of dominance through competition



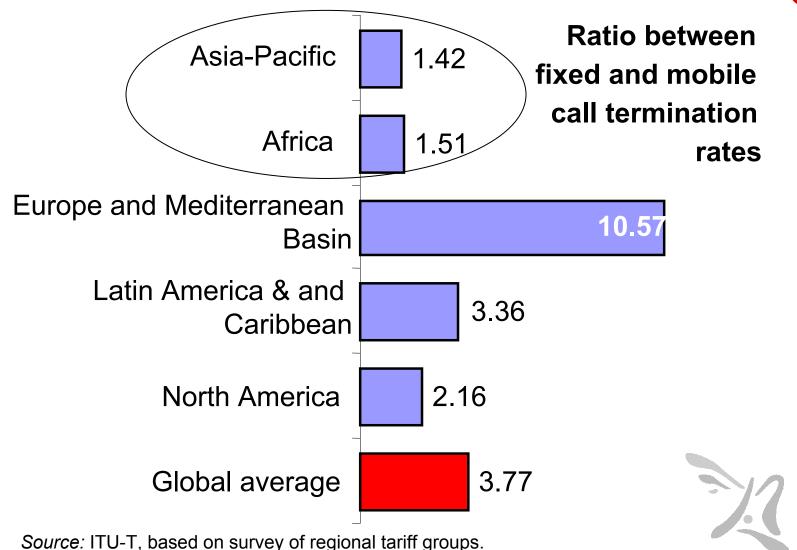
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## How does it actually work?

- Mobile operators in Europe not required to offer cost-based termination unlike fixed incumbents
  - Very high mobile termination
    - Once as high as 1:20 fixed:mobile, though on the decline
    - □ Extraordinary growth driven by asymmetric interconnection regime (real reason for Europe's "success" with mobile)
  - Starting around 2000, corrective action had to be taken

# From Tim Kelly's Thursday slides . . .



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#### But, cannot equate mobile to nondominant like the Europeans

☐ Importance of assessing each market on its own terms

#### In conclusion

- Regulation is the means; better performance
  - Greater connectivity
  - More value for money (price + quality)
  - Choice for customers

Is the end

- Operators produce better performance; regulators only facilitate
- Asymmetric regulation is a prudent way of facilitating by focusing efforts on the most important tasks