# Seminar on Tariffs for CIS Countries

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# Deriving Tariffs from Costs

Pape Gorgui TOURE
pape-gorgui.toure@itu.int

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# Tariff versus Cost

- The Tariff is what the end-user should pay for a unit of a given service or product;
- The unit cost is what the service provider incurs to produce a unit of a given service or product

# Problematic

- tariffs are of the policy domain and may include considerations depending on the realities of a local market;
- the competition tends to push tariffs towards cost;
- in the international telecommunication market, the outgoing settlement rate can be a significant cost element;

- The outgoing settlement rate is a tariff under the sovereign jurisdiction of the country of destination;
- it may include non-cost elements that the call originating operator may which to be allocated in a fair and transparent manner.

# Costs that are accepted as such

- fixed asset
- network operation and maintenance cost
- Business costs
- common costs
- cost of capital

# Cost causation

- there are costs which can be traceable to a given service (direct cost)
- there are costs which can be allocated to some services using different methods: it is expected that the cost allocation method be as objective as possible
- cost causation is is foundation of transparency

# forward looking costs

- the fixed asset costs are expected to be actual: reflecting the replacement cost of the infrastructure, in consideration of the new and efficient technologies;
- the adjustment to current costs must take into account the monetary erosion;
- there are operators who expect that the other costs be as close as possible to those that an efficient new entrant would incur;

# Current Cost Adjustment

- $CCA=DEP*((1+t)^{D/2} /(1-e)^{D/2} -1)$

*Where :*

- CCA=Current Cost Adjustment
- DEP=Annual Depreciation
- $\tau$=Compound Annual Growth Rate of the cost of telecommunication equipments
- $\varepsilon$=Compound Annual loss of local currency purchasing power
- D=Depreciation/life time

# inefficiency costs

- inappropriate excess capacity costs should be taken out when it comes to establish interconnection or incoming settlement rate;
- the growth rate of a network is a factor to be considered when evaluating inefficiency costs;

# inefficiency

$$K' = \mathrm{Max}(0 ; DK - K_u * [(1+t)^N - 1])$$

où:

*K ' = the inefficient capacity;*

*DK = the unused capacity;*

*$K_u$ = the capacity in use;*

*t = the compound annual growth rate of the capacity in use*

*N the time needed to add new capacity*

# Regional Cost Models characteristics

# The TAS Cost Model

- lack of account separation
- no efficiency consideration
- refinement intended for cost causality

# The TAL Cost Model

- no information about spare capacity
- include USO as a basic cost element without explanation

# The TAF Cost Model

- fulfils the expectation
- practicability to be measured after practical implementation

# Other Elements for tariffs determination

- corporate tax
- USO fund
- Access deficit

# Corporate tax

- tax on operation profits
- financial profits are not subject to a corporate tax
- the total corporate tax is given by:

$$L_{benefits} = \frac{t_{levy}}{1 - t_{levy}} * r_{capital} * Capital$$

# Universal Service Obligation

- A country may impose a levy on the revenues of an operator in order to fund the USO costs.
- USO may be combined or not with Access deficit
- Where applicable, $$USO = r_{uso} * \left( L_{benefit} + \sum_{i=1}^{n} k_{si} * T_i \right)$$

Where $k_{Si}$ and $T_i$ are the unit cost and the volume of service $S_i$

# Access deficit (1/3)

- Access deficit arises when a regulation authority opposes the necessary increase of the components hereunder:
  - *connection fee*
  - *monthly subscription fee*
  - *price of a minute of urban call*
  - *price of a minute of interurban call*

# Access deficit (2/3)

- Before reallocating the access deficit, it must be taken care that only the local subscribers are paying the connection rate and the monthly subscription fees.
- The tariff of outgoing communication should be reduced by:

$$\left(\Delta Parc * R_{conn} + msf * Nb_{subscr} * 12\right) * \frac{k_{si}}{\sum_{j=1}^{n'} T_j k_{sj}}$$

# Access deficit (3/3)

- The following relation gives a measure of the access deficit:

$$D = T_{urb} * \left( k'_{urb} - p_{urb} \right) + T_{interub} * \left( k'_{interub} - p_{interurb} \right)$$

# Tariffs rebalancing

# Objectives of tariffs rebalancing

- The access deficit reflects the cross subsidisation of domestic communications by international incoming and outgoing communications;
- the tariff  are balanced when the access deficit become insignificant.

# Rebalancing process

- An example of process
- In the real life, tariff rebalancing should be a step by step goal setting process to support the pricing policy
- The TAF Model has implemented the rebalancing process (a special session could be organised if needed);
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